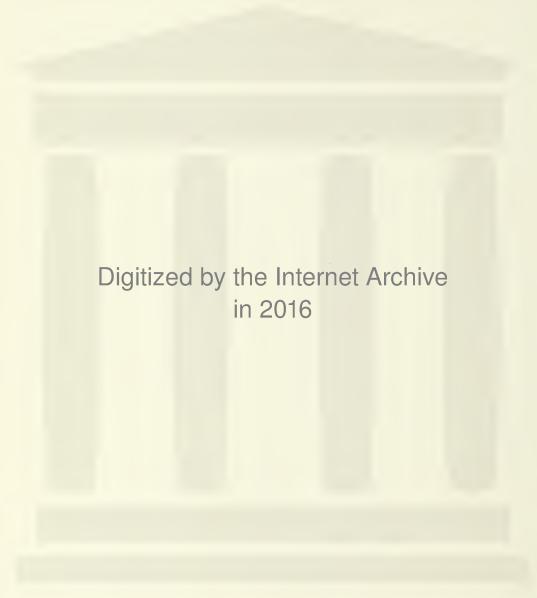


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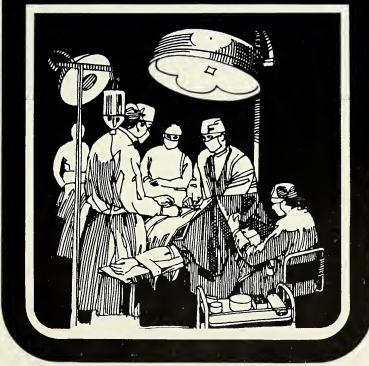
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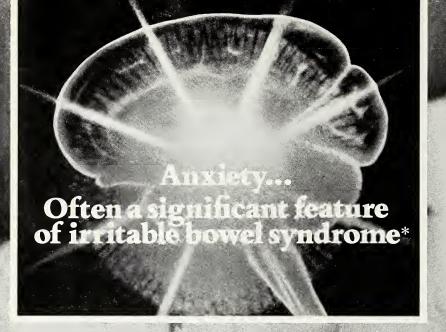
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JANUARY 1978



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"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

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Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures, necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido-all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction re ported occasionally with chlordiazepoxide HCI, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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President's Page

Last month I commented on the HEW hospital planning guidelines proposed in September, 1977. I reported to you our protests concerning their arbitrary reduction of hospital and medical services throughout the state.

It has been most heartening to learn of the response of thousands of "consumers," our patients, who have joined us, hospital administrators, and others in the health care field in opposing these dictatorial federal plans. IHSA subarea council members were particularly incensed at Mr. Califano's blatant attempt to usurp prerogatives that they understood had been assigned to them by Congress. They learned in a hurry that the bureaucratic establishment is interested only in costs on a nationwide basis and has no understanding of quality or accessibility of medical care.



All of the members of Iowa's congressional delegation responded positively to an official letter from the IMS regarding this important matter. Representative Berkeley Bedell introduced a resolution condemning the inflexibility of the guidelines which was passed unanimously by the House of Representatives.

Let us hope this incident will cause Congress to be more watchful that the HEW bureaucracy does not destroy the good in our present system solely in the interest of saving money. Obviously our patients are willing to support quality!

IW francom M.D.

L. W. Swanson, M.D., President

IOWA Medical Miscellany

NEW, BUSY YEAR . . . 1978 IMS activities begin with a January flourish. A Conference on Practical Politics and Lobbying is set January 11 at Society Headquarters. The afternoon session is open to all but is planned particularly for legislative contact physicians. Also on January 11, the IMS will host a briefing for officers of Iowa medical specialty groups. This annual program enables the participants to exchange information on major issues.

INFO ON IMS/AETNA... Any county medical society desiring an informational program on the IMS/Aetna Liability Insurance Plan should contact Society Headquarters. Darrel Chapman, the program's account supervisor, is available to present the educational programs.

EFFECTIVE 1/1/78 . . . A new Iowa law on brain death takes effect this month. It reads: "Death" means the condition determined by the following standard: A person will be considered dead if in the announced opinion of a physician, based on ordinary standards of medical practice, that person has experienced an irreversible cessation of spontaneous respiratory and circulatory functions. In the event that artificial means of support preclude a determination that these functions have ceased, a person will be considered dead if in the announced opinion of two physicians, based on ordinary standards of medical practice, that person has experienced an irreversible cessation of spontaneous brain functions. . . ."

1978 DUES . . . Dues activity moved briskly in December with the IMS collecting 1978 county, state and AMA dues. The Society aids 83 of the 92 county medical societies by collecting, recording and disbursing dues back to the counties. This activity comes on the heels of a year in which the IMS had a sharp increase (247) in new dues paying members. The total 1977 IMS membership was 2,626.

TITLE XIX . . . State funds for Medicaid in the coming fiscal year will need to be \$83 million, according to the Iowa Department of Social Services. This appropriation will be sought of the General Assembly in the current session. Federal Medicaid participation drops in 1978 from 57 to 51 percent, placing a heavier financial load on the state. Payments to Iowa physicians for the 1977 calendar year (to September) were 8.7% of the funds expended. For the fiscal year since July 1, the percentage has gone to 9.7.

TO SERVE... John Wall, M.D., Boone, will represent the IMS on a State Medicaid advisory committee concerned with the early periodic screening, diagnosis and treatment of youth under 21. The committee is a federal requirement and will include representatives from various organizations and state agencies.

IMPAIRED PHYSICIAN . . . Various entities within the Society's organizational framework (Committee on Alcoholism and Drug Abuse, Judicial Council, Psychiatric Committee) have considered the matter of IMS assistance for the impaired physician. The Board of Trustees has the subject under further evaluation and is awaiting a further reading from the Board of Medical Examiners as to its plan.

TASK FORCE . . . A special task force of the Iowa Health Systems Agency (HSA) is now deliberating methodologies for determining valid bed/population ratios and occupancy rates for Iowa. Recommendations of this body will be submitted for eventual use in the Iowa Health Systems Plan. Physicians on the task force are L. E. January, Iowa City; D. C. Young, Des Moines, R. T. Melgaard, Dubuque; R. T. Guthrie, Waterloo; Homer Skinner, Carroll; K. A. Garber, Corydon, and E. B. Grossman, Jr., Orange City. First meeting of the group was December 1.

MEDICAL MISCELLANY

MEDICO-LEGAL COMMITTEE . . . This committee continues to oversee the IMS/Aetna Liability Insurance Program. It met December 15 to conduct both a claim review panel and an insurability hearing.

RATE INCREASE . . . Rate increases averaging 13 per cent will go into effect January 1 for Iowans covered by Blue Cross/Blue Shield in group plans (2 to 25 persons). Rates for larger groups are based on experience of the particular group and vary depending on the utilization of services. The increase will affect about 250,000 persons. The increase is half what it was last year.

OPHTHALMOLOGISTS ACTIVE... More than 5,000 letters, cards, etc., have been distributed on request to ophthalmologists who in turn are sending them to patients. The letters call attention to the Iowa legislation now under consideration which expands the optometric practice act. Patients receiving the letters are requested to ask their legislators to oppose the proposition.

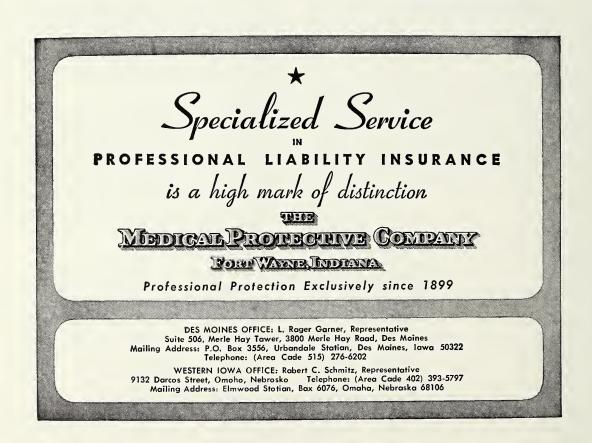
LEGISLATIVE DINNER... The IMS will share as a member of the Iowa Health Council in hosting the state's lawmakers at a traditional dinner in Des Moines February 2. The IHC will hold an educational conference the afternoon of February 2.

BUDGET SESSIONS ... The Society's Board of Trustees met December 14 and 15 to finalize the 1978 IMS budget. Budget allocations were made to cover an estimated \$600,000 in income, with approximately \$95,000 assigned to reserves.

PSYCHIATRIC CARE... Experimentation with outpatient psychiatric benefits through Blue Shield will continue as a discussion topic when the IMS Committee on Psychiatric Care meets January 11.

SECOND SURGERY OPINION . . . Provision is made in a new Blue Cross/Blue Shield contract with Northwestern Bell Telephone to allow payment for second surgical opinion consultations. This is reported to be the first group plan in Iowa to authorize such a stipulation.

(More Miscellany on page 23)



The Question Box



by ERLING LARSON, JR., M.D.

AMA POLICY-MAKING

Dr. Larson is the senior of Iowa's three delegates to the American Medical Association. He practices internal medicine in Davenport. He represented Iowa last month, as he does twice a year, at sessions of the AMA House of Delegates.

As Iowa's senior AMA delegate, do you think the smaller states have a fair chance to be heard on the medical issues of the day?

Yes. Much as in the Congress of the United States, a delegate will be listened to if he has done his homework, speaks moderately and succinctly, and if he has sufficient seniority to be known by the major delegates, the officers, or the committee chairmen of the AMA.

You served on a reference committee during the recent session of the AMA House of Delegates. What kind of an experience is this?

I have been fortunate to have served on one convention committee and two reference committees during my relatively short tenure in the AMA House of Delegates. This experience has convinced me that the AMA is one of the most democratic institutions in the United States. Any medical student, house officer, American or foreign graduate, or any AMA member is free to testify before any AMA reference committee. This testimony may concern any resolution introduced before the AMA or any subject discussed in any Board of Trustees report or the report of any

AMA committee. This testimony is duly considered by the reference committee, but the committee itself is totally responsible for its own report, which is made without pressure or dictation from the AMA hierarchy. This reference committee report must then survive a critical analysis by the entire House of Delegates before it becomes official AMA policy.

What are the two or three key issues on the minds of all U. S. physicians, as reflected by the AMA House of Delegates?

A number of key issues now pervade American medicine. The most significant ones at this time are: (1) Control of rapidly escalating medical costs, (2) Continued and progressive government control of medical practice and decision making, and (3) Increased litigation on behalf of and against the AMA so that AMA legal fees have now reached a cost of \$100,000 per month.

Why do you as a busy practicing physician allow time for this socio-economic national involvement?

My father convinced me early in my medical career I was not meeting my obligations unless in addition to the practice of medicine I also contributed a fair share of my time to my community, my church, and my profession. From the moment I graduated from medical school our profession has been under constant attack. I felt I could best serve by contributing to organized medicine at a local, state, and national level. In my current role as an AMA delegate I hope to be able to balance accepted and needed progress while still attempting to save the freedom that has been so jealously guarded for us for over 200 years.

There is no substitute



yours...

Contraindications: Anuria, hypersensitivity to this or other sulfonamide-derived drugs.

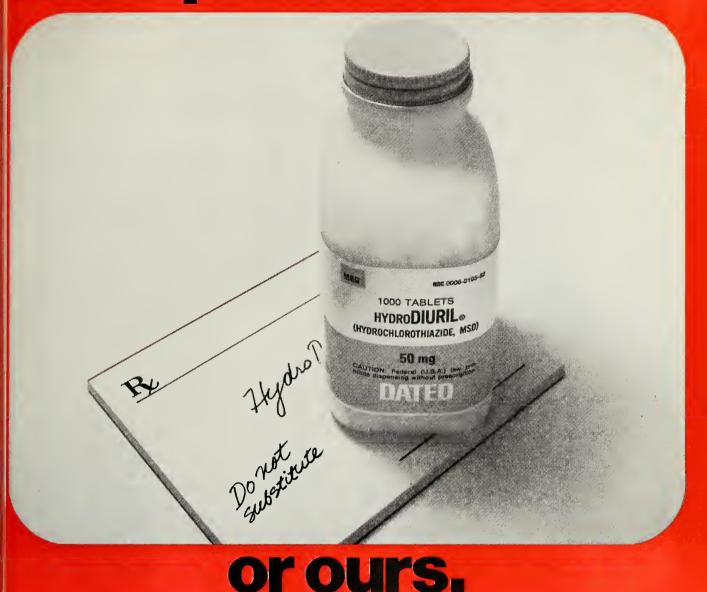
Warnings: Use with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. Cumulative effects may develop in patients with impaired renal function. Use with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma. May add to or potentiate action of other antihypertensive drugs; potentiation occurs with ganglionic or peripheral adrenergic blocking drugs. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possibility of exacerbation or activation of systemic lupus erythematosus has been reported. Lithium generally should not be given with diuretics because they reduce its renal clearance and add a high risk of lithium toxicity. Read circulars for lithium preparations before use of such concomitant therapy. Use in Pregnancy: Thiazides cross placental barrier and appear in cord blood; in pregnancy, weigh anticipated benefit against possible hazards to fetus, including fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions that have occurred in adults. Nursing Mothers: Thiazides appear in breast milk; if use of drug is deemed essential, patient should stop nursing.

Precautions: Perform periodic determination of serum electrolytes to detect possible electrolyte imbalance. Observe all patients for clinical signs of fluid or electrolyte imbalance, namely, hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when patient is vomiting ex-

cessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs, irrespective of cause, are dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting. Hypokalemia may develop, especially with brisk diuresis, in severe cirrhosis, with concomitant corticosteroid or ACTH therapy, or with inadequate oral electrolyte intake. Hypokalemia can sensitize or exaggerate response of heart to toxic effects of digitalis (e.g., increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content. Any chloride deficit is generally mild and usually does not require specific treatment except under extraordinary circumstances (as in liver disease or renal disease). Dilutional hyponatremia may occur inedematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt except in rare instances when the hyponatremia is life threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients. Insulin requirements in diabetic patients may be increased, decreased, or unchanged; latent diabetes mellitus may become manifest. Thiazides may increase responsiveness to tubocurarine. Antihypertensive effects of the drug may be enhanced in post-sympathectomy patients. May decrease arterial responsiveness to norepinephrine; this diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use. If progressive renal im-

for experience—



pairment becomes evident, consider withholding or discontinuing diuretic therapy. Thiazides may decrease serum PBI levels without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hyper-calcemia and hypophosphatemia have been observed in a few patients on prolonged therapy; thiazides should be discontinued before testing for parathyroid function.

Adverse Reactions: Gastrointestinal System—Anorexia; gastric irritation; nausea; vomiting; cramping; diarrhea; constipation; jaundice (intrahepatic cholestatic jaundice); pancreatitis; sialadenitis. Central Nervous System—Dizziness; vertigo; paresthesias; headache; xanthopsia.

Hematologic - Leukopenia; agranulocytosis; thrombocytopenia; aplastic anemia.

Cardiovascular — Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity—Purpura: photosensitivity; rash; urticaria; necrotizing anglitis (vasculitis) (cutaneous vasculitis); fever; respiratory distress including pneumonitis; anaphylactic reactions.

Other—Hyperglycemia; glycosuria; hyperuricemia; muscle spasm; weakness; restlessness; transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

Note: When used with other antihypertensive drugs, careful observations for changes in blood pressure must be made, especially during initial therapy. Dosage of other antihypertensive agents must be

reduced by at least 50 percent as soon as this drug is added to the regimen. As blood pressure falls under the potentiating effect of this agent, further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary.

How Supplied: Tablets containing 25 mg hydrochlorothiazide each in bottles of 100 and 1000 and single-unit packages of 100; Tablets containing 50 mg hydrochlorothiazide each in bottles of 100, 1000, and 5000 and single-unit packages of 100; Tablets containing 100 mg hydrochlorothiazide each in bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

MSD

In hypertension

TABLETS: 25 mg, 50 mg, and 100 mg

(HYDROCHLOROTHIAZIDE|MSD)

IN THE PUBLIC INTEREST/IMPAIRED PHYSICIAN

Through its 177-year history the Iowa Medical Society has had an obvious concern for those from its physician ranks who have been beset by physical, mental and emotional impairments. Recently, however, this interest has intensified for various well-intended reasons.

Any impairment that afflicts an individual, regardless of his or her calling or station in life, should be handled compassionately, with understanding, with rehabilitative support, and with the hope of a return to normalcy. This obvious philosophy has been supported by the Iowa Medical Society in concert with a belief that assistance (counseling, therapy, etc.) should emanate from local sources whenever possible. Consequently, the Society has encouraged county medical societies and hospital medical staffs to respond actively—in the interest of the afflicted physician and the public—when a situation warrants.

In the past several years, as noted, time has been taken to look at what further activity should be pursued in situations where physicians are reported to be experiencing difficulty for one reason or another. The subject of the impaired physician has come before the Society's Psychiatric Care Committee, its Alcoholism and Drug Abuse Committee, its Judicial Council and its Board of Trustees. Formal word has been transmitted to the State Board of Medical Examiners and to the Society's Auxiliary expressing a willingness to provide advice and counsel on request.

With increased national interest in aiding the impaired physician, and with the passage of a new Iowa law (S.F. 312) giving professional and occupational licensing boards expanded disciplinary responsibility, the Iowa Medical Society is obligated to see where and how its program should be reinforced. The Society's actions will need to correlate with regulatory procedures worked out by the Board of Medical Examiners. The process is a complex and important one.

Whatever new procedures are evolved, it needs to be remembered that physicians are plainly human. The pressures they face may propel them toward emotional disturbance, alcoholism, drug abuse and mental illness in greater proportionate numbers than those in other fields. It should be no surprise that physicians can, and do, become ill, mentally as well as physically; that they can, and do, become dependent upon alcohol and other drugs.

The consequences of physicians becoming ill do have unique ramifications if the illness impairs their ability to function. The physician suffers, as does his family—just as others do; but in the case of the physician, the community also suffers if it is deprived of the services normally available. Also when situations occur involving a physician, the profession's accountability is jeopardized.

Recognizing this fact of accountability, and recognizing too the need to restore any encumbered physician, the following position statement was approved in 1972 by the American Medical Association House of Delegates:

"It is a physician's ethical responsibility to take cognizance of a colleague's inability to practice medicine adequately by reason of physical or mental illness, including alcoholism or drug dependence. Ideally, the affected physician himself should seek help when difficulties arise. Often, however, he is unable or unwilling to recognize that a problem exists. When exhortations by family and friends are ineffective and when the physician is unable to make a rational assessment of his ability to function professionally, it becomes essentially the responsibility of his colleagues to make that assessment for him, and to advise him whether he should obtain treatment and curtail or suspend his practice."

The emphasis of the profession has been on early intervention with appropriate help. The aim of intervention is to keep the physician active with limitations as needed or, if total suspension is indicated, to support a return to full practice as soon as possible.

It is well that many state medical societies and many hospital staffs are reviewing the question of the disabled physician. Many state licensing boards are working cooperatively with the medical profession to find, confront, rehabilitate and, if it becomes necessary, to discipline the disabled physician. These are positive developments which deserve further consideration.



Menetrier's Disease: Report of a Case

WOO YOUNG YOU, M.D., JAMES P. GOULD, M.D., and ALBERT L. CLEMENS, M.D. Des Moines, Iowa

SINCE 1888, when Menetrier¹⁵ first described a giant gastric hypertrophy as a "polyadenoma en nappe," more than 150 cases of this rare and unique disease have been discussed by various authors who observed giant gastric hypertrophy, hypoproteinemia, achlorhydria,^{1, 5, 6, 18, 23} and occasional hyperacidity.^{4, 14} The disease, with unknown etiology, seems to afflict adults, mostly between the fourth and sixth decades. According to Fieber,⁸ none of his 50 cases occurred in childhood or adolescence. Leonidas,¹² however, reported a 3½-year-old boy with Menetrier's disease in 1973.

There has been a long-standing controversy over the possible malignant potential of Menetrier's disease. Although several cases of gastric carcinoma have been reported in association with Menetrier's disease, many investigators still beReported is the case of an 18-year-old white female with Menetrier's disease. It involved three-fourths of the stomach, more prominently through the great curvature, with hypoproteinemia and achlorhydria. Grossly, the gastric mucosa appeared markedly thickened, enlarged, and tortuous, with occasional polyposis. All histologic appearances of Menetrier's disease were demonstrated. One of the interesting findings was considerable epithelial atypia in the mucosal glands along the muscularis mucosa.

lieve they are coincidental. Menetrier held the view this disease is premalignant. The following report illustrates a case of Menetrier's disease with considerable epithelial atypia.

CASE REPORT

An 18-year-old female complained of epigastric distress and fullness, dyspepsia, weight loss, and occasional vomiting for approximately three weeks prior to admission. The patient had had no peripheral edema. Repeated hematological examinations revealed mild normochromic normocytic anemia. Protein analysis indicated hypoproteinemia with an abnormal electrophoresis, characterized by markedly decreased albumin and slightly decreased gamma globulin. The gastric analysis showed no free hydrochloric acid, and a Histolog stimulation failed to produce a positive reaction for the same. The patient's serum electro-

Dr. You was a resident in the Department of Pathology at Mercy Hospital in Des Moines from 1974 to 1976. He is now associated with the Norwalk Hospital in Norwalk, Connecticut. Dr. Gould is in the private practice of internal medicine (gastrointestinal) in Des Moines, Dr. Clemens is in the private practice of surgery in Des Moines. Both are members of the medical staff at Mercy Hospital.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF JANUARY 1978



Figure I

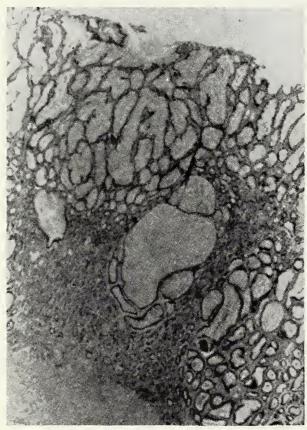


Figure 2

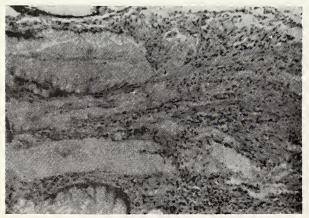


Figure 3

lytes were unremarkable. Upper gastrointestinal series revealed the prominence of the mucosa of the stomach with the appearance of numerous filling defects, indicative of severe gastritis. The gastroscopic examination was suggestive of carcinoma of the antrum. The gastric biopsy, however, disclosed Menetrier's disease, confirming the clinical impression. At surgery the stomach was found to have multiple giant hypertrophic rugae and polypoid lesions involving three-fourths of the stomach, prominently through the great curvature. A three-fourths gastric resection was performed, followed by entercolic gastrojejunostomy and entercenterostomy. No palpable tumors were identified in the abdominal organs.

PATHOLOGIC FINDINGS

The distal three-fourths of the stomach (18 cm x 12 cm) had a normal serosal surface. Palpation revealed soft, enlarged, freely movable rugae, giving the sensation of a bag of worms. The gastric mucosa presented the large, thickened, tortuous, polypoid folds of the mucosal rugae, measuring up to 1.5 cm in width and arranged in rows in the transverse and longitudinal axis of the stomach. This involved almost the entire resected stomach (Figure 1). The distal antral portion near the distal surgical end was, however, normal. The sulci between the rugal folds were very deep, with occasional protruding polypoid appearance. The surface appeared pinkish-red in color, finely to coarsely granular in texture, and covered by abundant mucus. Cut sections of the stomach revealed markedly hypertrophic mucosa, severely edematous submucosa, and slightly thickened muscularis. The average thickness of the mucosa and the submucosa was 1.1 cm, while the entire thickness of the stomach reached to 1.3 cm.

Microscopically, the mucosa appeared tremendously thickened and hypertrophic, with occasional polypoid proliferation (Figure 2). There were marked hypertrophy and chronic inflammatory cell infiltration of the muscularis mucosa. The gastric pits showed elongated and tortuous glands, covered by abundant eosinophilic mucus. Most of the glandular epithelia were lined by tall columnar, mucus-secreting cells and goblet cells, which were identical to intestinal-type epithelium. The parietal and chief cells appeared to be relatively decreased in number throughout the bases of the glands. Various-sized glandular cystic dilatations were noted in the lamina propria, most of which were filled with amorphous mucus, cell

debris, and a few polymorphonuclear leukocytes. The epithelium of the cystic glands was composed mainly of intestinal-type mucus cells and some mucus neck cells, and a few parietal cells. Increased hypertrophic muscle bundles arising from the thickened muscularis mucosa were appreciated in the lamina propria (Figure 3). The mucosa was diffusely infiltrated by lymphocytes and eosinophilic leukocytes and occasional plasma cells. Few polymorphonuclear cells were also seen. In several foci, glandular epithelia showed disarrayed cells, with hyperchromatic and hypertrophic nuclei with a few mitoses (Figures 4 & 5). No unequivocal evidence of malignancy was noted. The muscularis mucosa and submucosa showed heavy lymphocytic and eosinophilic infiltrates with rare plasma cells. The muscularis was diffusely hyperplastic.

Two benign gastric glands, herniated into the muscularis mucosa, were also apparent. The submucosa presented severe edema, fibroblastic activity, and vascular proliferation.

COMMENT

Pathologic features have not been improved upon by subsequent writers, who have applied various names for Menetrier's disease since Menetrier first described it in 1888. The characteristic anatomic features of Menetrier's disease are the large, thickened, tortuous, nodular folds of the mucosal rugae of the stomach, which may take on a polypoid, lobular, globular, or papillomatous appearance.⁸ In most cases, the enlarged folds are more apparent along the great curvature.

The prominent microscopic picture of Menetrier's disease consists of tremendous hyperplasia of the surface epithelium, resulting in extensive elongation and tortuosity of the foveolar pits. The striking development of the rugae is attended by upward infolding of the mucosa, carrying with it the muscularis mucosa and its vascular supply.

One of the outstanding pictures is cystic dilatation of the glands, with replacement of the functional elements by mucin-secreting cells, which connotes nothing but the existence of some occlusive mechanism in the drainage system of the gastric glands.⁸ In the case described there was marked intestinal metaplasia, described by Bartlett,² Plumbo,¹⁷ and Spellberg,²⁰ as an important finding in Menetrier's disease. Bockus⁴ and Raotma,¹⁰ however, did not support their view.

Usually parietal and chief cells decrease in number with unknown etiology. Frank⁹ tested



Figure 4

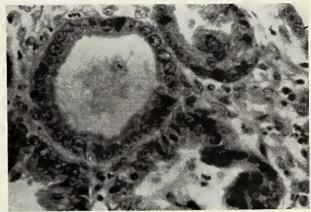


Figure 5

serum antibodies of patients with Menetrier's disease against parietal cells and an intrinsic factor, but failed to demonstrate serum antibodies. This case also showed marked decrease in the number of parietal and chief cells.

Heavy cellular infiltration in the mucosa and submucosa is mostly lymphocytes, eosinophilic leukocytes, plasma cells, and occasional polymorphonuclear leukocytes. In Menetrier's disease the muscularis mucosa is hyperplastic with muscular splitting, fragmentation, and cellular infiltration, as seen in the mucosa. Rarely, the cystic glands herniate through the layer of muscularis, as observed in this case. The submucosal edema has been described along with vascular proliferation and fibroblastic activity in most of the cases.

The pathogenesis of Menetrier's disease has remained obscure, even though various possibilities have been proposed. Some authors^{1, 9} have postulated an autoimmune disease as a cause, without definite evidence. Our patient had no history of hereditary, allergic, congenital, or endocrinological abnormalities.

Clinical interest has been focused into hypoalbuminemia and frequent achlorhydria. The cause of hypoalbuminemia has been attributed to the mucosal loss of gastric albumin through the gastric juice. 1, 3, 18 While achlorhydria has not been considered as a pathognomic phenomenon, most of the collected cases revealed achlorhydria or hypochlorhydria of the gastric analysis. This seems to be related presumably to diminution of parietal cells. 3

Bockus⁴ and Ming¹⁴ described hyperacidity associated with severe ulcer in a few instances of Menetrier's disease in which an increased number of parietal and zymogenic cells was apparent.

Is Menetrier's disease premalignant? Palmer¹⁶ recalled that Menetrier's monograph was mainly concerned with cellular malignant transformation occurring in hypertrophied glands. Rubin¹⁹ reviewed seven cases^{2, 13, 17, 20, 21, 22} of Menetrier's disease associated with carcinoma of the stomach. Only five cases^{2, 17, 18, 20, 22} were accepted, includ-

ing his own case. Interestingly, the case described showed considerable epithelial atypia of the gastric glands, which James Ewing⁷ called the beginning of gastric cancer, just above the muscularis mucosa. Matzner¹³ reported in 1951 a case of hypertrophic gastritis which terminated in a carcinoma of the stomach after 13 years of illness, but Rubin, because of lack of evidence, was not convinced. In Matzner's case, 13 histologically, carcinoma of the stomach involved the lamina propria and submucosa with intact mucosa. Spellberg²⁰ in 1953 presented a patient with gastric glandular hyperplasia, which became malignant after 10 years. No concrete evidence to indicate that Menetrier's disease is premalignant is available to us.

REFERENCES

The references noted in this paper may be obtained either from the authors or the Journal of the Iowa medical society.

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Bladder Carcinoma At University of Iowa Hospital and Clinics

AMBATI S. NARAYANA, M.D., M.S., F.R.C.S., STEFAN A. LOENING, M.D. and DAVID A. CULP, M.D.

Our estimations indicate approximately 550 new cases of bladder cancer were diagnosed in Iowa during 1976. Approximately 170 patients died of bladder tumor in this same period. Ninety percent of all newly diagnosed bladder cancer patients are in an early stage, but even early diagnosis of bladder cancer does not guarantee a cure. The hypothesis here is that bladder cancer arises from a chronic neoplastic diathesis which expresses itself in varying degrees of biological virulence in the same and different patients and in different ways over varying periods of time. The process involves all urinary transitional epithelium, and while the bladder itself still seems to be the site of the most frequent expression of this diathesis, lesions may occur simultaneously or sequentially from the uppermost calyx to the distal urethra. A new bladder tumor is most likely to appear in the patient who has had one previously. The majority of these tumors are not true recurrences of the disease at the original site, but rather the development of new tumors distinct from the original lesion. These may be new tumors arising spontaneously from a field of atypical epithelium.

Keeping this biological behavior of the tumor in mind, we began studying patients with bladder carcinoma treated since 1974 at the University of Iowa Hospitals and Clinics. We have concentrated on such factors as demographic characteristics, stage, grade, multiplicity and frequency of

The authors are associated with the Department of Urology, University of Iowa Hospitals and Clinics, Iowa City, Iowa. This work has been supported by Public Health Service Grant CA-15933 from the National Cancer Institute, National Institutes of Health, Department of Health, Education and Welfare.

Summarized here is the investigative activity relating to bladder cancer at the U. of I. The effort is being made to ascertain what form of therapeutic management produces the best results.

the development of subsequent tumors. This matrix of diagnostic and therapeutic choices serves as a basis for close study of the disease to provide:

- (1) Identification of patients who are at greater risk of developing new tumors, providing certain prescribed methods of evaluation are followed:
- (2) The ability to identify patients who will develop invasive bladder carcinoma from among those who have some common characteristics which identify their high risk category;
- (3) Identification of those patients who have little risk of developing another carcinoma;
- (4) Improvement in our ability to predict the response to specific therapeutic modalities through consideration of the patient's tumor history as well as such factors as morphological characteristics and stage of disease.

In the Department of Urology at the University of Iowa Hospitals and Clinics, 267 patients have been seen for carcinoma of the bladder since 1974. Table I shows the number of patients seen initially per month and the yearly total through 1976 only.

The yearly total has not varied greatly in the last three years. Referral of patients with carcinoma of the bladder to this department has been uniform over the last 36 months. All these patients have been subjected to careful follow-up. Only one patient has been lost to follow-up; each patient has been seen at least twice during a calendar year. Table II gives the monthly number of

TABLE I
TOTAL NUMBER OF PATIENTS PER MONTH

Jan.	Feb.	Mar.	Apr.	Мау	Jun.e	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1974 17	6	13	4	3	6	6	5	9	6	7	7	89
1975 7										9		79
1976 9										5	3	82
												250

patients who have returned to the hospital for further evaluation since 1974.

Forty per cent of the patients seen in the last three years were first diagnosed at this institution. The remaining 60 per cent had previous therapy before referral to the University of Iowa or the associated Veterans Administration Hospital. Types of previous treatment included: (1) transurethral resection, (2) open surgery, (3) chemotherapy, and (4) radiation therapy. From the total of 250 patients seen during the period from

ability to diagnose these extensions in a high percentage of patients is due to our close follow-up of patients with bladder tumor. Twenty-two per cent of patients developed muscle invasion during our follow-up.

Tumor was visible on cystoscopy at the initial evaluation in 217 patients. In each case a bladder diagram was completed (Figure 1) which provides the description, site and number of tumors. Table III shows the tumors seen. Table IV gives the location of these tumors.

TABLE II
NUMBER OF FOLLOW-UP VISITS PER MONTH

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1974 0	6	4	9	9	9	10	15	19	12	16	24
1975 20	20	27	22	21	26	29	27	37	23	24	3 I
1976 32	34	35	31	32	21	28	35	35	31	39	23

January, 1974 through December, 1976, 13.6% showed pelvic extension, while 5.2% demonstrated distant metastasis at the time of their initial presentation at the University of Iowa Hospitals and Clinics. In contrast, 26% developed pelvic extension subsequently while being followed here; 18% developed distant metastasis. Our

As part of our work-up on these patients, urine and bladder washings were obtained for cytological examination. Eighty-three patients had their bladder washings submitted for cytological examination upon initial evaluation of

TABLE III

	Number	Percent of Pts. W/Visible Tumo
Papillary	. 137	62.0
Flat		12.7
Sessile	. 84	38.0
Ulcerated	. 2	1.0
Necrotic	. 2	1.0
Unknown	. 6	2.7
No visible tumor	. 14	Percent of Pts. w/cysto. 6.0

TABLE IV SITE OF TUMOR

	Number	Percent of Pts. W/Visible Tumor
Trigone	. 76	34.4
Right orifice	. 51	23.1
Left orifice	. 49	22.2
Right wall	. 71	32.1
Left wall	. 73	33.0
Anterior wall	. 24	10.0
Posterior wall	. 41	18.6
Dome	. 33	14.9
Neck	. 73	33.0
Prostatic urethra	. 25	11.3
Prostate	. 10	4.5
Other	. 2	1.0

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their tumor. Fifty-eight of these patients were found to have positive cytology, and 25 had negative cytology. Bladder washings were obtained from 279 patients during their subsequent follow-up. Of these, 121 were positive, and 158 were negative. Ninety-eight patients had their urine submitted for cytology at initial evaluation; 71 were found to be positive and 27 were negative. Three hundred urine cytologies were submitted on subsequent visits. Of these, 189 were negative, and 124 were positive. Fifty-two patients had selected mucosal biopsies as a part of the initial evaluation. In 26 patients at least one biopsy was positive. In 26 all the biopsies were negative. A total of 102 selected mucosal biopsies were performed on subsequent visits. In 26 of these at least one specimen was positive, and in 76 all the specimens were negative.

Forty-five patients were found to have an occupation which may have contributed to the development of bladder tumor. Of these, 39 were males and 6 were females. There was one black patient. One hundred and six patients were found to be smoking at the time of development of bladder tumor; 88 of these were males and 18 females. Twenty-five patients were found to have other malignant tumors apart from the bladder tumor with which they presented. Twenty-one of these were males; four were females. The kinds of treatment provided to patients with bladder tumor are listed in Table V.

The present status of patients who were seen in the last three years is listed in Table VI.

TABLE V CURRENT THERAPY

TUR											_		_	=	=		136
Chemotherapy																	
Topical					٠.										2	ı	
Systemic		٠.									 				2	8	
Open Surgery		٠.				 			٠.								60
Radiation Thera	ру	٠.				 					 						27

TABLE VI PRESENT STATUS

Dead																				92
With Ca																				
W/O Ca																				
Alive																				158
With Ca																				
W/O Ca	٠.	٠.	٠.	٠.	٠.		٠.		 		٠.		٠.		 			11	3	

BLADDER DIAGRAM OUTLINE AFFECTED AREAS AND INDICATE: FLAT (VELVETY) AREA SUSPICIOUS OF ATYPIA OR CA-IN-SITU X=BIOPSY SITE ~ SESSILE TUMOR P = 52 PAPILLARY = RESECTION / FULGURATION E = - BULLOUS EDEMA ANTERIOR PATIENTS RIGHT PATIENT'S LEFT POSTERIOR DOME POSTERIOR PUBIS PUBIS

Figure 1. Bladder diagram for recording cystoscopic findings.

PATIENTS LEFT WALL

RECTUM

PATIENTS RIGHT WALL

At present the specific issues under investigation pertain to the therapeutic management of bladder cancer and include intravesical chemotherapy for superficial tumors, radiation therapy, surgery, adjuvant chemotherapy for invasive carcinoma, chemotherapy for metastatic disease and chemo-prevention for patients at high risk.

Intravesical Instillation of Antineoplastic Agents in Non-invasive Primary Bladder Carcinoma: Urologists are widely divided as to the role of Thio-Tepa in the management of low grade, low stage bladder carcinoma. Some are quite enthusiastic, and some never use the drug. Further, of those who do, there is a difference of opinion as to the proper dose. Even less agreement exists as to the role of the drug in preventing the emergence of new tumors. At the present time we are using 60 mg and 30 mg of Thio-Tepa in a controlled, randomized trial to treat carcinoma-in-situ and superficial multiple tumors which have not been completely resected. We hope to prove or disprove the superiority of one dose over another and to see whether 60 mg of Thio-Tepa has more toxic effects than does 30 mg. We are also using Thio-Tepa prophylactically in doses of 30 and 60 mg, and some patients are randomized to a control group receiving no medication. Again, we would like to prove or disprove the usefulness of Thio-Tepa in prevention of recurrence of bladder tumor. If it is useful, we would like to come out with an effective, nontoxic dose of Thio-Tepa.

Radiotherapy vs Adjuvant Radiotherapy and Cystectomy for Invasive Carcinoma of the Bladder: The effectiveness of radiotherapy as a curative agent in the treatment of invasive bladder carcinoma or as an adjuvant form of treatment with surgery has not been established. We would like to be able to indicate if cystectomy, with or without adjuvant radiotherapy, has the capacity for local control in patients with invasive bladder cancer. If radiotherapy could selectively destroy the tumor in proportions equal to cystectomy and leave the patient with a functioning urogenital tract, then an important contribution would be made by using radiation alone.

Evaluation of Cis-platinum and Cyclophosphamide in Treating Patients with Advanced Carcinoma of the Bladder: Abundant data indicate that invasive bladder carcinoma often becomes a systemic disease as the neoplasm extends into the muscle and peri-vesical fat. Unpublished data concerning the first sign of therapeutic failure in cystectomies performed at Sloan-Kettering Memorial Institute and Massachusetts General Hospital demonstrate that extra-pelvic metastases are more common than pelvic disease. Since there is limited information concerning the use of antineoplastic agents in the treatment of disseminated bladder carcinoma, a systematic evaluation of cytotoxic drugs in patients with evaluable metastatic lesions becomes an important step in selecting patients in whom adjuvants to local therapy may be useful. While other agents may be tested, both Cis-platinum and cyclophosphamide are reported to have produced a significant number of responses in a small

number of non-randomized patients with metastatic disease. Therefore, these compounds are being studied initially.

Controlled Trial of Chemo-prevention of Bladder Carcinoma with 13-Cis-retinoic Acid: The hypothesis for this study is that synthetic retinoids, in this case cis-retinoic acid, will prevent the development of neoplasms in patients at high risk for the occurrence of such lesions. Bladder carcinoma arises repeatedly at the same or different points in the bladder because the entire field of urothelium has suffered carcinogenic insult. The effect of these insults is to produce recurrences in a variable fashion. Studies of the histology and cytology of the number of tumors and field will yield data on patients at highest risk. Cis-retinoic acid will be tested for its effectiveness in chemo-prevention.

Adjuvant Chemotherapy with Cis-platinum Following Pre-operative Radiation Therapy and Cystectomy for Patients with Invasive Transitional Cell Carcinoma of the Bladder: It is wellknown that patients with invasive bladder carcinoma who have been treated with adjutant radiotherapy and cystectomy frequently lose their lives to silent metastasis often outside the pelvis. Local control is thus inadequate for cure because the disease is commonly systemic when local measures are instituted. These micrometastases may be susceptible to cytotoxic agents which have shown activity against well-established lesions. In addition to the patients with apparently controlled local disease, there is that group which manifests pelvic metastasis found at surgery for whom no form of treatment is available at present. They suffer even greater loss of life than does the former group, and agents such as those mentioned here may prove beneficial in these patients with advanced disease.

CONTINUING EDUCATION COURSES & CONFERENCES

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

January 4 January 23-26 January 26 February 1 February 3 February 14-17 February 23 March 1 Ophthalmolagy Clinical Canference
Cardialagy Taday
Radiatian Therapy Seminar
Ophthalmalagy Clinical Conference
Otalaryngolagy Clinical Canference
Refresher Caurse far the Family Physician
Radiatian Therapy Seminar
Ophthalmalagy Clinical Conference

March 1-3
Religion, Ethics, and Health Care Delivery in America
March 3
Otolaryngalagy Clinical Conference
lawa Radialagical Saciety
March 13-16
Cardialagy Taday
March 15
Diet Therapy U.S.A.
March 23
Radiatian Therapy Seminar
March 29-30
Canference on Perinatal Medicine, Des Maines





M. E. ALBERTS, M.D., Scientific Editor

ME AND THEE AND CME

Well, CME is here. The legislature has passed the law that has CME as one of the requirements for re-licensure. CME is continuing medical education, and it is something we all participate in daily. But what the law has in mind is formal education that can be categorized, and quantified, that can be named and counted and then fed to a computer. The Board of Medical Examiners has the task of establishing the type of education required and how much. And it will be necessary to have these hours in order to be relicensed every year.

So far, so good. I'd say that this is not really going to be so hard to do. I know some doctors feel CME is not going to do any good. I disagree. I think it can do all of us some good and some of us a lot

of good. I think once you get into the swing of it, you'll like it. It's fun to hear about how somebody else does what you do. You might pick up a point or two that you can put to practical use. You might disagree with what you hear and that's great. Not everybody treats the same thing the same way. Or you might agree 100% with the speaker and feel exhilarated that "great minds run in the same channel."

The time away from the office will be good for you and your wife. And as a friend of mine used to say "leave town once in awhile so your patients can see a real doctor for a change."

I guess what I'm saying is don't be negative or antagonistic about CME. It will be a good thing for us. It's something we ought to accept with enthusiasm.

Come on in—the water is fine.—D. J. Walter, M.D.

SURGERY WITHOUT BLOOD TRANSFUSIONS

A recent report by Ott and Cooley* on cardiovascular surgery without blood transfusion emphasizes a need for a fresh approach to the use of this practice. It also suggests the need for a review of the rights of persons to refuse blood transfusion for religious reasons. Last month I received a communication from The Watchtower Bible and Tract Society with information on the belief of the Jehovah's Witnesses regarding blood transfusions. They indicate material will be delivered personally to all members of the medical and legal professions. There appears to be a new timeliness and importance to this issue.

During the past summer more than 100 regional conventions of the Jehovah's Witnesses included special sessions on the subject of blood. Consideration was given to the religious basis for the organization's views, as well as ethical, legal and medical problems raised as a consequence of these views. The material for the medical and legal professions summarizes the considerations.

The fundamentalistic sect of Jehovah's Witnesses had its beginnings in 1881 and now claims over 2 million followers in 210 countries.

The members interpret the Bible to prohibit a Christian's taking blood, even to sustain his life.

(Please turn to page 20)

^{*} Ott, D. A. and Cooley, D. A.: Cardiovascular surgery in Jehovah's Witnesses. J.A.M.A. 238:1256-1258, 1977.

EDITORIALS

(Continued from page 19)

To them abstaining from blood is as important as abstaining from idolatry or fornication. They cherish and deeply respect life. They do not smoke, use addictive drugs or seek abortions. The acceptance of blood forfeits the chance for resurrection and eternal salvation. Witnesses are sincere and steadfast in their convictions and are willing to accept personal responsibility regarding their stand, and many carry a signal card requesting no blood transfusions. Physicians are legally and morally relieved of any obligation to insist on blood. In fact, administering a blood transfusion against a patient's wishes could lead to liability to assault and battery charges if not a justified malpractice suit.

Ott and Cooley and others certainly have shown that major surgery can be accomplished without blood transfusions, and with an acceptably low risk. No claims have been made against a physician for failing to administer blood to a Jehovah's Witness. They are sincere and cooperative as long as their beliefs are respected. The patient has the right to make the decision and the physician has a moral responsibility to respect the religious convictions on which it is based. If the physician cannot abide by that responsibility he should make it clear before assuming professional care of the patient, thus allowing the patient to seek care elsewhere.

There is another aspect of this question which should be raised after the report of the large numbers of cardiovascular surgical procedures without blood transfusions. The series by Ott and Cooley (542 operations) covered a wide array of procedures, including 362 with temporary total cardio-pulmonary bypass, 23 cases of abdominal aortic aneurysm, 11 Tetrology of Fallot cases and 11 coarctation of the aorta repairs. These are formidable procedures in one area of surgery. Ongoing studies would prove valuable in other surgical areas.

In some hospitals, patients are routinely typed and cross-matched with a couple units of blood for angiograms. Are we doing too many unnecessary blood transfusions? Are all the units of blood on "stand-by" really necessary? When Lactate Ringer's solution served the purposes of the cardiovascular surgeons cannot it too fill the purposes in other cases of surgery instead of the often too freely used blood, with its attendant risks as well?—M.E.A.

THE 9% SOLUTION (Or Cost Containment at Any Price)

Sherlock Holmes had his problem with the 7% solution (cocaine). It clouded his senses and he didn't perceive conditions clearly.

President Carter has his problems with health care and to cope has taken to the 9% solution—the cost containment approach to keep health care costs from rising unhealthily.

I think this is taking a simplistic approach to a complex problem that can't be solved by putting restrictions on one part of a cumbersome health care program.

In trying to help my son with his algebra, I learned something about equations. You can do anything you want to one side of an equation, as long as you do the same to the other side. I think the 9% lid does something to one side of the

health care equation without doing the same to the other side. It won't work.

Part of the problem with health care cost is government intervention (intrusion). I can't remember that the government ever took anything over and had the costs or expenses go down. Whenever the government participates, the cost of the program goes up, but less money is available for the real purpose of the program. The reason for this is that administrative costs always go up disproportionately.

Nationalizing the medical profession will hardly help cost containment either. Other areas of the total health care costs will continue to rise to eat up the health care dollars.

So forget it, President Carter. The equation won't balance. Try a program with a little personal incentive in it to save, with some co-insurance, and deductible insurance in it, to see if it will help teeter the totter to a balanced health care program.—D. J. Walter, M.D.

As I Remember

STARTING AN IOWA EYE BANK

In 1950 when I came to the University Hospitals in Iowa City I found there were many people who needed corneal surgery. Since I was unable to get many eyes it was necessary to refer these patients.

It was my hope to obtain enough eyes through postmortems. This did not prove feasible. Many physicians were reluctant to ask for eyes fearing it would decrease their chances of getting permission for the postmortem.

In talking with some doctors who had started eye banks I found they were extremely discouraging. However, John Harry Ring, M.D., director of the Washington, D. C., eye bank, gave me a great deal of encouragement.

After several false starts I was able to get on the program for the State Lions Convention in Fort Dodge. I presented the eye bank concept and the Lions of Iowa were to publicize the program. They gave us financial support to pay the

This historical vignette has been prepared by Alson E. Braley, M.D., former head of the Department of Ophthalmology at the University of Iowa College of Medicine. This series is a project of the IMS Historical Committee.

IOWA MEDICAL MISCELLANY

HEALTH PLANNING BRIEFING . . . The subject of health planning will be covered at a March 11 (Saturday) conference at the Hilton Inn in Des Moines. The session is open to all member physicians. It is a project of the Society, the Iowa Hospital Association and the Iowa Health Systems Agency. More detailed program information will be forthcoming.

TWO STATE APPOINTMENTS . . . Norman Johnson, formerly with Blue Cross/Blue Shield, has been named executive secretary of the Iowa Board of Pharmacy Examiners, succeeding Paul Crews. Gary Riedman of Lincoln, Nebraska, has been selected director of the new Iowa Department of Substance Abuse.

by ALSON E. BRALEY, M.D.

salary of a secretary. Each of the clubs was to buy an enucleation kit for their hospital. The Highway Patrol was contacted to help in transporting eyes to the University Hospitals. The Lions contacted legislators to change the Iowa law so an individual could donate tissue without waiting for the next of kin to approve. This was accomplished.

The education of the public to donate their eyes was begun. In July of 1955 our eye bank was in operation. I had done corneal transplantation on Miss Ruth Fisher several years earlier and she became the eye bank secretary. She performed ably in that position, and it is believed she has attended every Lions State Convention since that time. The eye bank has been in operation 22 years.

Our relationship with the Lions Clubs of Iowa has been close. The culmination of our efforts has been the building of the new Iowa Lions Corneal Center at University Hospitals. This houses the eye bank and all the research and activity relating to the cornea of the eye.

The Lions of Iowa should be proud of their efforts and their generous contributions to help develop the eye bank and promote eye care throughout the world.

NOMINATING PROCESS . . . The attention of individual member physicians and county medical societies is called to the annual society nomination process which begins early in each calendar year. District caucuses to review candidates and select representatives to the IMS Nominating Committee occur regularly in February and March. Tentative plans call for the 1978 Nominating Committee to meet Sunday, April 2, at Society Headquarters.

MEETING SURVEY... The first 611 physician members who responded to an IMS survey on scientific session preferences included 69 percent who favored the recently-used approach of alternating in-state and out-of-state meetings. The subject is under review by Society President-elect R. S. Gerard, M.D., in looking to the 1979 scientific session. The 1978 Scientific Session will be in Iowa City on April 4, 5 and 6.

Refresher Course for the Family Practitioner

The 1978 Refresher Course for the Family Practitioner will occur in Iowa City February 14 to 17 under sponsorship of The University of Iowa College of Medicine and the Iowa Academy of Family Physicians.

The course is accredited for 24.5 hours by the American Academy of Family Physicians and for

TUESDAY, FEBRUARY 14

Drug Therapy: Anticonception Agents Otolaryngology: Lump in the Neck Ophthalmology: How to Examine the Eye Dermatology: Photo Clinic—Summertime Problems

Pulmonary Testing Equipment for the Office
Management of Post-Menopausal Bleeding

Family Counselling by the Family Physician and Others When and How to Do Genetic Studies and Counselling

Diagnosing and Managing Septicemia

Changing Patterns in Female Genital Cancer—What to Do Now?

Questions and Answers on Pulmonary Disease

Monitoring Antibiotic Use

Treatment of Peptic Ulcers With the New H2 Blockers

Bursitis in Lots of Places Is All Mental Illness Biologic?

The Menopause: Should Symptoms Be Treated?

Virtues and Vices of Topical Steroids

Infection Control in Hospitals and Nursing Homes

High Fiber Diets and Other Diets in GI Disease

Fetal Monitoring—Indications, Techniques, Equipment

Beware of Vascular Injuries in Patients With Fractures

Proper Use of Blood Component Therapy

Resuscitation of the Newborn

Is That Neck or Back Pain a "Disc" or Not?

Thyroid Cancer After Irradiation of the Head and Neck

The New Epidemic Venereal Infections

WEDNESDAY, FEBRUARY 15

Infection Following Classical Cesarean Section: An Indication for Early Hysterectomy

Drug Therapy: Anti-Infective Agents

Otolaryngology: What Can Be Done for Nasal Obstruction

Ophthalmology: Assessing and Treating the Red Eye Dermatology: Photo Clinic—Wintertime Problems

CPR Practice and Certification by American Heart Association

What Cats the CAT-Scan Can and Can't Skin

How to Anesthetize the Nose and Other Areas of the Head

Early and Late Treatment for Strokes

Children's Fractures and Foot Problems

Chest Pain Diagnosis-Should the Patient Have Treadmill Test,

Thallium Scan, or Angiography?

Today's Indications for Mammography

Recurrent Headaches

Can I Vasodilate My Way Out of Heart Failure?

Male Contraception, Today and Tomorrow

PUVA and Other New Skin Treatments

Category I credit toward the AMA Physicians' Recognition Award. Full information is available from the Office of Continuing Medical Education, U. of I. College of Medicine, Iowa City, Iowa 52242.

Topics to be considered on the dates indicated are as follows:

Forensic Medicine Problem Clinic

Tips for Effective Functioning on an Audit Committee What Does the Oncologist Expect of the Family Physician?

EKG Reading: Practice and Critique

What Are the New Tests in the Lab?

Emergency Medical Services in Iowa

Problems and Approaches to Substance Abuse

Are Any of the New Arthritis Medicines Any Good?

Non-Invasive Cerebral Vascular Diagnosis

Pediatric Surgical Emergencies

THURSDAY, FEBRUARY 16

Malpractice Prevention Program From AAFP

Drug Therapy: Antihypertensive Agents

Otolaryngology: Unspinning the Dizzy Patient

Ophthalmology: What the Family Physician Should Know and Do

About Cataracts

Dermatology: Photo Clinic—Outside Problems

Transcutaneous Nerve Stimulation of Difficult Pain Problems

The Latest in Management of Severe Burn

Managing Infections of the Urinary Tract

Simple Office Techniques to Distinguish Types of Vaginitis

Preventing Hypertension and Atherosclerosis and Other Problems of Infant Nutrition

Nuclear Imaging Procedures in Cardiology

Soft Tissue Injuries of the Ankle

Review of Suture Materials-Pros and Cons

Review of Catheters and Their Proper Use

How to Improve Continuing Medical Education at Home

Why Hormone Receptors Must Be Checked in Mastectomy Patients

Penicillin: The Forgotten Drug

New Patterns of Practice for Improved Patient Treatment

Better Help for Patients With Asthma

Acute Myocardial Infarction-1978-Problems and Pitfalls

FRIDAY, FEBRUARY 17

Drug Therapy: Virtues and Vices of O-T-C Products

Otolaryngology: Surgical Treatment of Facial Injuries

Ophthalmology: How to Save the Glaucoma Patient From Blind-

Dermatology: Photo Clinic—Inside Problems

Supervised Practice in Taping/Wrapping Athletes

Which Sprains and Strains Need More Than Rest, Heat and

Today's Practical Uses for Ultrasound—Radiology, Internal Medicine, Ophthalmology and Obstetrics

How to Handle the Post-Date Pregnancy

Initial Management of Infants Showing Respiratory Distress

Educationally Speaking



by R. M. CAPLAN, M.D.

CHEMISTRY, COMPUTERS AND CHANGE

Listening to a series of lectures today, I heard highly "educated" men use words that made me wince. Maybe it was because they seemed like distortions of words, or deliberate attempts to torment the "rules" we use to form words and plural endings. I made a note of each infelicitous monster and then put them all into this artificial sentence:

On the attached appendice (pr. uh-pen'-diss-ee) please prioritize the listed methodologies, to help the committee develop its criterions for finalizing the book's indice.

After doing a slow burn I began to be surprised at myself. I realize full well that language grows and decays. It is as organic as the creatures that invent and use it. The forms and meanings of words and even the rules of grammar will inevitably change. But the modifications stimulate resistance. Thus, I find Bach much more "listenable" than Bartok.

In a recent essay called "Moral Machines" Isaac Asimov speculated about the possibility of developing computers that could, in essence, have a conscience. He sees no impediment to the development of "computers (that) eventually would become capable of doing all the things a human brain can do. Is there a theoretical limit to how intelligent a computer can become?" All we need is the manufacture of "finer and finer components, more and more intricately related and larger and larger. . . . Some people are sure to be

skeptical and ask, 'But how can a computer possibly produce a great symphony, a great work of art, a great new scientific theory?' The retort I usually am tempted to make is 'Can you?' . . . (Geniuses arise) only because atoms and molecules within their brains are arranged in some complex order. There's nothing in their brains but atoms and molecules. If atoms and molecules are arranged in some complex order in a computer, the products of genius should be possible. . . . Some people may say, 'But computers do only what they are programmed to do.' True. But brains can do only what they're programmed to do. Part of the brain's programming is the ability to learn, and that will be part of a complex computer's programming."

The unquestionable ability that some people have to learn and unlearn (that is, to change) quickly must have its basis in the arrangements of atoms and molecules. Some chemical configurations of the brain then are more capable of ready modification. Practice may help, but it remains true that the surest way to make a silk purse from a sow's ear is to start with a silk sow. Maybe we need more research into the biochemistry of continuing education.

One of these decades we may all speak of the "vermiform appendice" and not wrinkle a single frontalis fiber. But my cerebral atoms and molecules, although I like to think them reasonably limber and mobile, would still prefer something like this:

On the attached appendix please rank the listed methods, to help the committee develop criteria to complete the book's index.

My colleague Charlie Johnson suggests that maybe CME stands for "Confused Modern English."

Dr. Caplan is Associate Dean for Continuing Medical Education at The University of Iowa College of Medicine.

State Department of Health

HEPATITIS TRACED TO OMAHA MOTEL

During the last week of October, 1977, Omaha/Douglas County health officials became aware of hepatitis in several persons who attended a sales meeting on home decorating materials at the Old Mill Holiday Inn in Omaha, Nebraska. The meeting was on September 26, 1977. Preliminary investigation indicated two other groups also met at the motel between September 26 and 29 and were identified as Ford service managers and a group of Northern Natural Gas employees. Subsequently, John Wiley, Omaha/Douglas County Health Department, notified the Nebraska State Health Department and organized a cooperative investigation.

Earlier history revealed the index case was a chef who had prepared salads and other foods for the home decorators and Ford service people. He became ill with poorly defined symptoms on September 20 but worked until October 1, at which time he was hospitalized for 10 days with a diagnosis of hepatitis A. He returned to work October 20 with medical clearance.

It was determined the home decorators group was the largest group exposed with 254 people attending and 23 acquiring hepatitis for an attack rate of 9.05%. Northern Natural Gas had 180 people in attendance and only two were diagnosed with hepatitis for an attack rate of 1.11%. The Ford service managers reported six people with hepatitis out of 15 for an attack rate of 40%. Four employees of the motel also acquired hepatitis. To date, one secondary case was discovered in Iowa but no secondary cases have appeared in Nebraska. The total number of cases related to the exposure is 39.

Focusing on the Iowa cases, it appears the home decorating group #1, managed out of Shenandoah, was at highest risk of transmission. This group has 12 displayers and one manager; four are from Nebraska and do not have hepatitis. Of the remaining nine Iowans, six developed hepatitis infections. The other home decorating group #2 managed out of Arcadia, Iowa, has 19 members and reports no cases to date. One home decorator from Glenwood, Iowa, who is associated with a Nebraska group, also acquired hepatitis. In addition, three Ford service managers from Iowa reported hepatitis. Interestingly, one of these is married to a woman who is a member of the home decorating group #2 and remains asymptomatic.

One man from Shenandoah, Iowa, who was not associated with any group acquired hepatitis and was hospitalized briefly. He visited the motel for dinner with his wife on September 29.

Additional investigation identified a secondary case in a 15-year-old boy who ate food prepared by a woman who had hepatitis and was associated with home decorating group #1. This hepatitis case brings the current Iowa total to 12 confirmed cases associated directly or indirectly with the Omaha motel.

Investigative assistance was provided by the following persons and organizations: Charles Driscoll, M.D., Red Oak; K. D. Rodabaugh, M.D., Tabor; Dwain Wilcox, M.D., Atlantic; James Shehan, M.D., Red Oak; Ann McGrath, R.N., Mills County Health Department; Susan Askey, R.N., Montgomery County; John Wylie, Omaha/Douglas County Health Department; Paul A. Stoesz, M.D., Nebraska Department of Health, Lincoln, Nebraska; and the staff of Division of Disease Prevention, Iowa State Department of Health, Des Moines, Iowa.

Morbidity Report for November, 1977

		1977	1976	Most November Cases
	Nov.	to	to	Reported From
Diseases	1977	Date	Date	These Counties
Amebiasis	4	103	50	Black Hawk, Boone, Lee
Brucellosis	6	24	47	Decatur, Dubuque
Chickenpox	510	7717	10839	Scattered
Conjunctivitis	153	2101	1941	Scattered
Encephalitis,				
viral	1	4		Humboldt
Gastrointestinal				
viral inf.	2477	22119	26542	Scattered
Giardiasis	3	52	40	Des Moines,
				Pottawattamie
Hepatitis				
infectious	18	114	109	Scattered
serum	9	97	83	Scattered
unspecified	4	33	22	Johnson, Marion, Mills
Impetigo	100	77 I	939	Scattered
Infectious				
mononucleosi	s II2	1056	1052	Scattered
Influenza-like				
illness	4192	20745	48864	Scattered
Meningococcal				
meningitis	4	9	11	Scattered
Meningitis,				.
aseptic	1 2	29	13	Scattered
unspecified		17	7	Keokuk, Linn
Mumps Pediculosis	28 106	1334	1527	Scattered
		553	784	Scattered
Pinworms	4	38	32	Calhoun, Polk
Pneumonia	240	1172	948	Scattered
Rabies in anima	9	129	126	Scattered
Rheumatic feve	r 2	% 31	23	Lee
Ringworm body	31	315	246	Decatur
scalp	1	11	240	Scattered
Rubella	7	177	88	Davis, Marion, Webster
Rubeola	8	4316	44	Scattered
Scabies	233	1152	866	Scattered
Streptococcal	233	1152	800	Scarrered
infections	1102	11527	13715	Scattered
Tuberculosis	1102	11027	13713	Guilled
total ill	- 11	85	106	Scattered
bact. pos.	10	72	0.1	Scattered
Venereal diseas			%) 71	
gonorrhea	620	5518	6043	Scattered
syphilis (other		257	334	Scattered
syphilis (ear		40		Des Moines, Scott

Laboratory Virus Diagnosis Without Specified Clinical Syndrome Cytomegalovirus I, Eaton's agent infection 8, Herpes simplex 17.

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About IOWA Physicians

Dr. Samuel Estepa has joined Dr. Ramon Yaldua and Dr. Christina Yaldua in New Sharon. Dr. Estepa received his medical education at Manila Central University in the Philippines and additional training at Catholic Medical Center in New York.... Dr. John M. Hennessey, Manilla, is new medical staff president at Crawford County Memorial Hospital; Dr. Donald J. Soll, Denison, is vice president, and Dr. M. U. Broers, Schleswig, is secretary-treasurer. They will also serve as officers of the Crawford County Medical Society. ... Dr. Edward Drew, Des Moines, recently discussed by-pass surgery for obesity at a meeting of the Hardin County Nurses. . . . Dr. Pandu Bonthala recently opened a medical practice in Nevada. Dr. Bonthala received his medical education at Guntur Medical College in Guntur, India. Prior to locating in Nevada, Dr. Bonthala was on the staff at Wells Municipal Hospital in Wells, Minnesota.... Dr. Russell E. Schurtz, Mason City, was guest speaker at a recent meeting of the North Iowa Cleft Palate Association. Dr. Schurtz spoke on ear problems and surgical techniques with cleft palate patients. . . . Dr. Ramie Bernardo closed his medical practice in Sumner in November, and is relocating in Daytona Beach, Florida. . . . Dr. Gerald Solomons, U. of I. professor of pediatrics and Director of the Child Development Clinic at University Hospitals, has been named president of the American Academy of Cerebral Palsy and Development Medicine. . . . Dr. James W. Chambers, Des Moines, was named 1977 ABWA Boss of the Year by the American Business Women's Association, Fidelis Chapter.

Dr. Jim L. Wilson, assistant professor in the Department of Family Practice at the U. of I. College of Medicine, was guest speaker at recent Spencer seminar for physicians and pharmacists. Program topic was "Treating Upper Respiratory"

Infections: The Family Physicians and Pharmacist Team Up."... Dr. Carl Vorhes, Sheldon physician for 25 years, was honored recently at a farewell reception at the Sheldon Community Memorial Hospital. Dr. Vorhes is joining the Department of Family Practice faculty at the University of Minnesota Medical School, Dr. Vorhes had heart surgery this summer. . . . Dr. Robert Kretzschmar, U. of I. associate professor in the Department of Obstetrics and Gynecology, has been elected president of the University of Michigan Medical School in Ann Arbor. . . . Dr. John Huey, Cedar Rapids, has been reappointed to a six year term on the Cedar Rapids Airport Commission. Dr. Huey has served on the Commission since 1971 and has been chairman since 1975. . . . Dr. Ralph Smiley, Mason City physician since 1936, has moved to Dallas, Texas, where he will be associated with Dr. William Rea at the Brook Haven Medical Center. Dr. Smiley joined the Park Clinic in 1936 as the ninth physician. Today the Park group, said to be the oldest such practicing group in Iowa, has 24 members. . . . Dr. Richard M. Caplan, U. of I. associate dean of Continuing Medical Education, has been named chairmanelect of the central region of the Group on Medical Education of the Association of American Medical Colleges. He has also been named representative of the Association of Professors of Dermatology to the AAMC's Council for Academic Studies.

Dr. Jeffrey B. Crandall, Cedar Falls, was guest speaker at recent meeting of the Northeast Iowa Chapter, Retired Military Officers Association. Dr. Crandall's topic: "Heart Diseases: Early Symptoms and Detection." . . . Drs. Gerald H. Sutton, Boone, Paul T. Cawley, Carroll, Harry N. Hirsch and Charles M. Marriott, Sioux City, recently were presented silver anniversary citations from



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Creighton University recognizing their 25 years of service to mankind and their loyalty to the University.... Dr. Gary L. Fanning, Ames, and Dr. Charles E. Driscoll, Red Oak, attended the advanced cardiac life support training program held recently in Okoboji by the Iowa Heart Association. The session was chaired by Dr. H. A. Van-Hofwegen, Spencer. . . . Dr. William Bender opened a medical practice in Lansing in November. Dr. Bender is temporarily caring for the patients of Dr. Robert G. Love, who is recuperating from a heart attack. Dr. Bender received the M.D. degree at the University of Wisconsin Medical School; interned in Cedar Rapids, and served in the National Health Service Corps. Prior to locating in Lansing, he was an emergency room physician at Mercy Hospital in Dubuque. . . . Dr. James Rathke has joined the Kersten Clinic in Fort Dodge in the Department of Family Practice. Dr. Rathke received the M.D. degree at U. of I. College of Medicine and served his family practice residency at St. Joseph's Hospital in Mason City and Iowa Lutheran Hospital in Des Moines. . . . Dr. William C. Drier, Waterloo, recently was elected a board member of The National Bank of Waterloo. Dr. Drier received the M.D. degree at Wayne State University in Detroit, Michigan and began his practice in Waterloo in 1946.

Dr. Rolando E. Creagh, Des Moines, recently was appointed a Fellow of the American Society of Gastro-Intestinal Endoscopy. . . . Dr. Henry Gurau, Des Moines, was named 1977 AAMA Boss of the Year by the American Association of Medical Assistants, Des Moines Chapter. Ted Sloma, executive director of the Polk County Medical Society, presented the award. . . Dr. A. Akbari, Sioux City, was recently named president-elect of the Iowa Urological Association. . . Dr. Paul D. Wolpert, Sioux City, was recently elected to provider position on the IHSA Subarea Two Advisory Council.

DEATHS

Dr. David H. Hopkins, 92, Altoona, died at Iowa Lutheran Hospital on November 6. A native of Des Moines, Dr. Hopkins received the M.D. degree at U. of I. College of Medicine. He practiced in Glidden for 23 years, returning to Des Moines in 1950.

Medical Assistants



by BETTY EHLERT, CMA-A

52 IOWANS CERTIFIED

1,586 CMA certificates were earned by those taking the American Association of Medical Assistant certification examination in June, 1977. Of this total, 1,019 passed the Basic Certification

Myrna Alons, Ashton; Melonie Blackburn, Malvern; Brenda Bryson, Council Bluffs; JoAnne Cory, Des Moines; Denise Down, Council Bluffs—CMA-C; Janet Emerick, West Des Moines; Rose Marie Fowler, Bettendorf—CMA-C; Sharon Glynn, Cedar Rapids; Sandra Hayungs, LaPorte—CMA-C; Linnae N. Kenney, Des Moines—CMA-AC; Mary Koening, Des Moines—CMA-C; Nancy K. Alons, Sanborn; Paula Bruinsma, George; Pamela Christensen, Mason City; Leanna M. Culver, Ankeny; Constance Duling, Madrid; Diana Fink, Waverly; Judy A. Gardner, Des Moines—CMA-A; Karla Hawkins, North Liberty; Deborah A. Huber, Ankeny—CMA-AC; Paula Koebel, Moville; Luanne Kraus, Garnavillo.

Nancy Larson, Irwin; Debra Lull, Des Moines, CMA-C; Mary Jean Maxwell, Iowa City; Martha McDonald, Council Bluffs;

BOSS OF THE YEAR

Henry H. Gurau, M.D., was chosen "Boss of the Year" in October by the Des Moines Chapter. The following letter was submitted by his medical assistants, Connie Giesking and Diana Buck, CMA-AC:

SUCCESS

"He has achieved success who has lived well, laughed often and loved much; who has gained the respect of intelligent men and the love of little children; who has filled his niche and accomplished his task; who has made his mark on the world and the world will never forget; who has never lacked appreciation of earth's beauty or failed to express it; who has always looked for the beauty in others and given the best he had; whose life is an inspiration."

After reading that definition in THE JOY OF WORDS, we look at our boss and see success in all

Examination (CMA). Specialty category certification was awarded to 567 candidates, as follows: 173 Administrative (CMA-A); 372 Clinical (CMA-C); and 22 Pediatric (CMA-Ped).

Newly certified Iowans (all CMA unless otherwise noted) are:

Deborah Nidey, Williamsburg; Susan K. Perkins, Iowa City; Janis Porter, Fort Dodge; Karen Reinke, Manning—CMA-C; Peggy Rhodes, Fort Dodge—CMA-C; Beverly Rucker, Des Moines; Mardene Russell, Ames; Danise H. Lawrence, West Des Moines; Rhonda Mackin, Adel; Sheryl McConeghey, Monroe; Marilyn Merit, Council Bluffs; Lori Niles, Pisgah; Carolyn Plunk, Van Meter; Gail M. Reiman, Des Moines—CMA-C; Odette L. Reynolds, LeMars; Lois E. Rowe, Ames; Susan M. Ruppe, Des Moines; Carol J. Schatz, Waterloo—CMA-A; Donna G. Schmidt, Gowrie; Deera Ann Spohn, Carson, Lavonne Van Tol, Sanborn; Robin Wilson, Lenox; Catherine Ann Schmitt, Sioux City—CMA-AC; Diane Uthoff, Cedar Rapids; Jolene Wetmore, Council Bluffs; and Pamela Wood, Waterloo.

those ways.

He is a soft spoken man which makes a warm atmosphere for his patients and pleasant working conditions for the office. Never have we heard him raise his voice except when one of his patients may be hard of hearing. Along with his quiet nature, his great sense of humor is evident just when talking to him. We laugh together over quiet jokes and he laughs with us at our sometimes small mistakes.

No matter how busy his days may be, he always has time to listen and help with every problem, large or small, whether it be a patient or his office staff. His understanding ways give us guidance we so often need to get the job done.

Creativity is encouraged and new ideas are weighed with the old ones. Consideration for others is the basis of his good life.

Our boss expands our interest and knowledge in our work by taking the time to let us see the (Please turn to next page)

abnormal illnesses or surgeries. He feels the need to further his education and he encourages his employees to further their own education.

His generosity and fairness is shown when we need time off to be with our families. He is interested in our families and considerate of their feelings.

Not only is he dedicated to become all that he

can professionally, but he continues to succeed as an individual. He enjoys the outdoors and staying physically fit. Culturally he grows through playing the piano. Our boss has become not just a boss, but a good friend. This friendship we will treasure as we would a pot of gold.

Congratulations to Dr. Gurau and the newly certified medical assistants.

LIST YOUR WANTS

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INTERNIST NEEDED—Excellent opportunity for active practice of general internal medicine. Four-man group in north Iowa. Midway between Des Moines and Minneapolis. Close to lake. Family vacation opportunities galore. Excellent art museum and school system. Starting salary, \$45,000 plus bonus. Modern hospital. 35,000 community with 100,000 drawing area. Phone collect at 515/424-0244.

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GOLDEN OPPORTUNITY—for a physician in a fast growing, very professional eastern Iowa town of 6,500, 20 miles from the Mississippi. Assume busy practice of deceased doctor. Office one block from county hospital. Call 319/652-4367 or 515/279-7373.

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PSYCHIATRIC RESIDENCY—Vacancies for (PG2 through PG4 only) position for January 1, 1978 and July 1, 1978 for those who have a regular lowa license or can obtain one by reciprocity or via FLEX. Prepare for career in private practice, community clinics or hospital based psychiatry. Emphasis on close supervision of intensive individual and group psychotherapy, OPD. Children's Unit, Adolescent Unit. Neurology affiliation with University of Iowa. The stipends are: 1st year, \$22,360; 2nd year, \$23,478; 3rd year, \$24,674. Intensity and diversity of training program appreciated best by personal visit. T. B. McManus, M.D., Superintendent, Mental Health Institute, Cherokee, Iowa 51012. Equal Opportunity Employer. Call collect 712/225-2594.

FOR SALE—Miscellaneous medical and surgical instruments and equipment used in over 60 years of general practice. Some items quite old, some fairly new, some possibly collector's items. Dr. John E. Dahlbo, Sutherland, Iowa, retiring. Contact G. C. Bidwell, Agent, Sutherland, Iowa 51058 for details. Phone 712/446-2146.

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President's Page

We Iowans have long been proud of our University College of Medicine and Hospitals. Work done there has enabled graduates, trainees, and faculty to earn unusual national recognition as fine physicians. Few schools can point to as many national honors at one time as Iowa can right now. For example, among the faculty who hold high office in national organizations, Dean John Eckstein is President-Elect of the American Heart Association; James Clifton, Internal Medicine, is President of the American College of Physicians; Jack Moyers, Anesthesiology, is President of the American Society of Anesthesiologists; Frederick Blodi, Ophthalmology, is President-Elect of the American Academy of Ophthalmology. In addition, Robert Rakel, James Christie, Brian McCabe and Michael Bonfiglio served with honor as members of their



respective American specialty boards. There are many others who are officers on various scientific bodies. I salute all of you for the Iowa Medical Society.

The University Hospital has and is making great strides in providing facilities for tertiary medical care for Iowans. John Colloton, Director of University of Iowa Hospitals and Clinics, with faculty help, has developed a plan to completely refurbish all of the outdated 1926 portion of the Hospital. Up to now these improvements have been financed by federal grants, private gifts, and hospital revenues. It is the largest, most efficiently and economically operated of all the Big Ten University Hospitals. To continue, further bonding authority is needed from the Iowa Legislature this year, and direct appropriations for building the final phase will be needed in a few years. Bonding would be liquidated from University Hospitals paying patient revenues. Let us all impress upon our legislators and state administrative officials the great importance of maintaining these hospital facilities for the practice of extraordinarily fine medicine for the benefit of all Iowans. Our patients all deserve it.

LW fwarson M.D.

L. W. Swanson, M.D., President

IOWA Medical Miscellany

SCIENTIFIC SESSION . . . The phrase—Something for Everyone—is appropriate for describing the 1978 Iowa Medical Society Scientific Session. This three-day continuing education program will occur Tuesday through Thursday (April 4-6) in Iowa City. IMS member physicians are encouraged to attend this CME event which will include sessions at both University Hospitals and the Highlander Inn. More than 65 physician-speakers are set to discuss a broad range of medical topics. (See page 42) Speakers from the University of Iowa medical faculty will be supplemented by physicians from the Cleveland Clinic, from Can-

ada, from private practice in Iowa, etc.

Special events planned during the session include a reception and banquet Tuesday (April 4) at the Highlander Inn. On Wednesday (April 5), an early evening reception will be sponsored by the College of Medicine, to be followed by a concert by the University of Iowa symphony and chorus in Hancher Theater. Several additional events are planned during the Scientific Sessions by the Auxiliary for spouses.

The full program for the 1978 IMS Scientific Session will appear in the March issue of the IMS JOURNAL.

MAJOR APPOINTMENT . . . New State Social Services Commissioner Victor Preisser assumed his duties officially in January. Preisser appeared January 10 at a meeting of the Medical Assistance Advisory Council at IMS Headquarters to indicate his intention to make good use of the council.

LAETRILE LEGISLATION... House File 2031 has been introduced into the General Assembly with the intent of authorizing the manufacture, distribution, sale, prescription and use of amygdalin in Iowa. The IMS appeared at a January 25 public hearing to oppose the legislation and has developed a "white paper" for reference use.

HANDBOOK... The 1978 HANDBOOK for the IMS House of Delegates is in the preparatory stage with reports being received from the Society's approximately 40 committees. The HANDBOOK will be distributed to all delegates in mid-March.

RESOLUTIONS... County societies planning to submit resolutions for consideration by the 1978 House of Delegates are reminded they must be received in February if they are to appear in the HANDBOOK. Resolutions may be submitted beyond this point but they have less opportunity for study in advance of the House sessions. The 1978 House of Delegates will meet May 6 and 7 in Des Moines.

DISTRICT CAUCUSES... First step in the 1978 IMS elective process is now underway with caucuses occurring in February and March in the 12 Society councilor districts. These sessions are for the purpose of reviewing candidates for office and for selecting a representative to serve on the 1978 IMS Nominating Committee. The Nominating Committee is scheduled to meet at 10 a.m. on Tuesday, April 4, at the Highlander Inn in Iowa City. The listing of offices to be filled will appear in the February UPDATE.

IN THE PUBLIC INTEREST/SPOTLIGHT ON CME

THERE'S MUCH conversation and planning going on these days, and maybe even some teeth-gnashing, over the new law which says Iowans working in the licensed professions and occupations must engage in continuing education (CE) as a condition of licensure. The type and amount of CE is left to the particular licensing board, i.e., Board of Pharmaceutical Examiners, Board of Podiatric Examiners, etc.

The Board of Medical Examiners is now devising the rules under which the CE licensure requirement will operate for physicians. The BME has called on the Iowa Medical Society and the Iowa Society of Osteopathic Physicians and Surgeons to help decide how the program will work. It's anticipated by fall the program's framework will have emerged.

Depending of course on what is devised, most Iowa physicians should have little difficulty meeting the requirements for re-licensure. This statement is based in part on findings of a 1974 survey of Iowa physicians. From this published survey report came a comment that "the very lowest time spent in all kinds of continuing medical education activities reported by any one physician in the entire sample was slightly more than 100 hours per year, with the overall median approximately 350 hours per year."

The challenge represented by this new governmental edict is the selection of the learning experiences that will qualify for credit and how the process of documentation will go forward.

Meanwhile, it's CME business as usual for the medical profession and for the Iowa Medical Society. For many years the Society has provided an annual scientific session for member physicians. The 1978 edition comes up April 4-6 in Iowa City. This is one of many CME opportunities available to Iowa doctors; there are programs throughout the year throughout the country and world. But the IMS annual scientific session is a bit more special for Iowa doctors in that it's been tailored specifically to their educational needs. The 1978 program has been assembled by a committee of Iowa physicians (which includes John Hoak, M.D., R. C. Brown, M.D., R. M. Caplan, M.D., R. J. Corry, M.D., P. H. Gordon, M.D., and D. M. Youngblade, M.D.).

To afford physician readers a preview of the program content and also provide others an indication of the topics to be covered at the 1978 Iowa Medical Society Scientific Session in Iowa City (April 4, 5 and 6), there is listed below some of the subjects scheduled to receive attention.

It's apparent this program encompasses nearly the breadth of medical science. As a consequence, those Iowa physicians who attend the 1978 IMS Scientific Session will benefit, so will their patients. The officers of the Society and the members of the IMS Program Committee issue an invitation to their physician colleagues to be present for part or all of the 1978 Scientific Session.

Update Antibiotics/1978

Drugs

1978 SCIENTIFIC SESSION TOPICS Programs for Children With Develop-

Newborn Intensive Care & Infancy Trans-

mental Disabilities

Renal Transplantation
Coronary By-Pass Surgery
Acute Leukemia
Hemophilic Patients
Surgical Replacement of Joints
Microvascular Surgery for the Patient
With Cerebral Ischemia
Use of Granulocyte and Platelet Transfusions
Dementia, Its Proper Evaluation and Management
Indications & Applications of CT Scanning
Home Dialysis in Renal Failure
Management of Bronchial Asthma
Cardiac Imaging

Practical Immunodiagnostic Techniques

TIA's: Recognition & Management

Managment of Migraine

Middle Ear Ventilating Tubes

port
Serum Lipids & Blood Pressure in Children
Prenatal Genetic Diagnosis
Prolactinoma—New Diagnostic Entity
Estrogen and Menopause
Drugs in Pregnancy
Ovarian Cancer 1978
Indications for Operation in Patient With Diverticulitis
Management of Head Trauma
Ultrasonography in Diagnosis of Ocular & Orbital Diseases
Advances in Otolaryngology
Vitrectomy
Peripheral Arterial Reconstruction
Value of Disease Indexing

Thromboembolism Physician Responsibility to the Raped Patient Cryosurgical Destruction of Prostatic Car-Mohs Chemosurgery Procedure for Recurrent Basal Cell Carcinoma Indication and Prognosis for Intraocular Lenses Early Management of Spinal Cord Injury Laetrile Curable Lymphomas Anxiety: Diagnosis, Prognosis & Management Physical Illness in Anxiety Neurosis Primary & Secondary Affective Disorders Genetic Aspects of Mental Disease Advantages & Hazards of Psychotropic

Prophylactic Measures in Prevention of

The Question Box



by CLARENCE H. DENSER, JR., M.D.

COMMENTS ON LAETRILE

Dr. Denser is current president of the Iowa Divison, American Cancer Society. He is a practicing pathologist in Des Moines.

Does the Iowa Division, American Cancer Society, have a position on Laetrile?

Yes. On May 14, 1977, the Iowa Division reaffirmed its opposition to the indiscriminate use of any unproven method (such as Laetrile) in the treatment of cancer. The Division feels "any claim made as to the cure of cancer by the use of any unproven substance (such as Laetrile) is false until there is scientific evidence to substantiate the claim." Also, the Division "deplores the exploitation of the fear of cancer by anyone for whatever reason in promoting unproven methods."

What does the statement say about accepted cancer therapy?

One paragraph declares, "American physicians are presently using many drugs in the treatment of cancer, some of which were developed in several foreign countries. If any drug (especially Laetrile) were effective in the treatment of cancer, most American physicians would be using it as quickly as possible."

How does the Iowa Division feel about Laetrile advocates?

We are convinced that any well intentioned, misguided or purposely fraudulent person who tries to intervene in the treatment of the disease cancer with an unproven method does the highest disservice to the cancer patient or to the potential patient, and further perpetrates ignorance in the treatment of cancer now and in the future.

What response should Iowa physicians use when asked by patients about Laetrile?

It is admittedly a difficult and sensitive issue. Emotion is apt to block out reason. However, the oft-noted doctrine of "free choice" carries with it a responsibility to be informed, thus individuals, lawmakers, doctors, etc., must make their choices based on the most valid information. Physicians must objectively and compassionately advise patients that unproven medications (such as Laetrile) do not offer additional hope and they are fooling themselves by taking it. When asked by a patient, "Why won't you give me Laetrile?" E. J. Cassell, M.D., commented as follows in an article

For additional information on this subject, please see scientific article on page 47 and editorial on page 59.

in Hospital Practice, "Because I think it's wrong and will harm you and harm our relationship, because by taking it you will be fooling yourself. You'll be stopping yourself from dealing with what you have to deal with—how to handle your chemotherapy, how to get the most out of the life you have." For those patients where chemotherapy has not been effective, he says: "You have to deal with your life day to day, and I don't believe that you are doing that with Laetrile. If you feel that you can't do that, and want to take Laetrile, there is nothing I can do to stop you, but I won't give it to you and I won't sanction it."

State Department of Health

MATERNAL AND CHILD HEALTH

A review of a few selected statistics on live birth experience for Iowa residents over the recent past reveals several interesting facts:

- 1. In 1973, Iowa reached its low point in total number of live births (38,898); and there has been a steady increase in live births so that in 1976 there were 41,570 live births; and in the first nine months of 1977, there was a 10% increase in live births over that of 1976.
- 2. There has been a slight decrease in the percentage of live births to women under the age of 18 (from 6% of total pregnancies in 1973 to 5.1%of the pregnancies in 1977).
- 3. There has been a steady decrease in births to women over the age of 35 (from 9.4% of total births in 1966 to 3.8% of births in 1976).
 - 4. There has been a rise in the numbers of

TABLE I PERINATAL DEATH RATES, BY OCCURRENCE IN IOWA HOSPITALS AND STATE TOTALS 1972-76

15	72 197	3 1974	1975	1976
A 2	1.2 20.4	4 17.8	15.1	12.4
B 20	0.3 20.3	18.6	15.9	13.0
C 2	1.9 17.3	7 19.0	16.0	13.9
D 2!	5.3 20.8	3 22.0	18.0	18.6
E 2	5.4 23.3	3 25.4	22.6	21.8
Totals 2	3.7 20.	5 21.4	18.4	17.5

- Hospitals with less than 100 deliveries/year. Hospitals with 100-249 deliveries/year. Hospitals with 250-499 deliveries/year. Hospitals with 500-999 deliveries/year. Hospitals with 1,000+ deliveries/year.

$$Perinatal = \frac{FD + ND}{LB + FD} \times 1,000$$

births occurring to women in the age group of 25-29 (26.5% in 1972 to 33.2% in 1976).

A review of this data indicates a rise in total number of live births over the past five years; however, one can make the optimistic observation that we have had an increase in births in the ideal age group of 25-29 with a steady decrease occurring among teenagers and women over the age of 35.

In a review of the data of births which occur in Iowa hospitals regardless of residency (occurrence data) another set of significant facts are revealed: The total perinatal mortality of Iowa hospitals has decreased from 23.7 in 1972 to 17.5 perinatal deaths per thousand births in 1976. This decrease in perinatal mortality is reflected in the five classifications of Iowa hospitals as indicated in Table I.

However, in reviewing the data of the birth experience of the hospitals of Iowa, one identifies the following categories of high risk women:

- 1. Ten percent of the 42,000 deliveries occurred to women as a fourth pregnancy or greater.
 - 2. Eight percent occurred to unmarried women.
- 3. Seventeen percent of the women who delivered had less than a high school education.
- 4. Sixteen percent of the women who delivered had entered prenatal care in the second or third trimester of pregnancy.
- 5. Eighteen percent of total pregnancies indicated a medical complication of pregnancy on the birth certificate.

The foregoing facts indicate the need for continuing emphasis on assuring a quality of prenatal, natal and postnatal care for the population of women with special needs during pregnancy.

In the area of preventive medicine, quality prenatal care is of paramount importance. Good prenatal care is necessary for lowering infant mortality and ensuring the delivery of a healthy baby as well as the continued good health of the mother. At present, the Maternal and Child Health Section of the State Department of Health supports the efforts of four maternal health centers in Iowa which provide services in some 12 counties. Services provided in these centers include prenatal care and education, dental health education, nutrition counseling, referral and follow-up, delivery either within the local community or the University of Iowa Hospitals, and postpartum care, including family planning services. These services are developed to serve a need in those geographic areas where services are not readily available.

To assist families in making good use of the services provided by the maternal health and child health centers, health education programs have been developed. They cover such topics as nutrition, care of self during pregnancy, preparation for childbirth, care of the infant, recognition of illness, etc. Methods of teaching include individual counseling, group discussion and use of selected literature and films.

Maternal and Child Health Section provides infants and children with preventive care services through the sponsorship of child health centers. The centers serve infants from birth to child-hood and provides services to those clients utilizing preventive techniques, periodic health appraisal and anticipatory parental guidance. The health services provided include physical exam-

inations, nutritional assessment, hearing evaluations, vision screening, urine testing, developmental screening, and referral and follow-up in order to assure continuity of care. Currently there are nine child health centers providing services in 23 of Iowa's 99 counties.

The staff of the Department provides appropriate consultation and technical guidance to each local maternal and child health project, maintains and develops guidance materials for the development of maternal and child health services and provides ongoing evaluation of existing services throughout the state.

This program's goal is to develop services in areas of need in a manner that compliments existing services. Therefore, services are developed in collaboration with local medical providers and local medical societies, local health departments, public health nurses, and other health providers of the community. The major emphasis is on complementing existing services so as to ensure there is no duplication of services brought about. Any information that is desired concerning the goals and development of the program can be obtained by contacting the Maternal and Child Health Section, Personal and Family Health Division, Iowa State Department of Health, Lucas State Office Building, Des Moines, Iowa, 50319 or by telephoning Theodore D. Scurletis, M.D., Medical Director of Maternal and Child Health. (515) 281-4914.

DIABETIC ACTIVITY

A 1978 goal of the American Diabetes Association—Iowa Affiliate—is to locate physicians, nurses and dietitians willing to participate in programs for one or more of the organization's 20 local units. Any individuals able and interested in this service are invited to contact Anna Katherine Jernigan, vice president, American Diabetes Association—Iowa Affiliate—at the State Department of Health.

Additional objectives of the organization's education committee are to provide materials (films, cassettes, slides, folders, etc.) on diabetes and encourage their use; to create greater awareness of Camp Hertko Hollow, YMCA Camp, Boone—as a worthwhile summer experience (June 25-July 1) for diabetic children, and to hold a two-day workshop for approximately 10 diabetic health teams (physician, nurse, dietitian, pharmacist) who would in turn conduct workshops.

Slides, tapes and printed materials will be made available to physicians' offices on request.

Morbidity Report for December, 1977

		1977	1976	Most December Coses
	Dec.	to	to	Reported From
Diseoses	1977	Dote	Dote	These Counties
Amebiasis	1	104	57	Johnson
Chickenpox	501	8218	11908	Scattered
Conjunctivitis	72	2173	2012	Scattered
GI viral infection	2377	24496	32065	Scattered
Giardiasis	- 1	53	44	Henry
Hepatitis				•
infectious	4	118	114	Scattered
serum	4	101	100	Emmet, Johnson, Linn,
				Lucas
unspecified	4	37	23	Emmet, O'Brien, Page
Impetigo	52	823	1103	Scattered
Infectious				
mononucleosis	63	1119	1133	Scattered
Influenzae-like				
illness	2978	23723	54193	Scattered
Meningitis				
aseptic	- 1	30	13	Linn
type unspecifie	d 4	21	9	Dallas, Dubuque, Johnso
Meningoenceph-				
alitis	- 1	2	3	Dubuque
Mumps	24	1358	1672	Scattered
Pediculosis	51	604	876	Scattered
Pinworms	- 1	39	32	Polk
Pneumonia	165	1337	1067	Scattered
Rabies in animals	5	144	129	Scattered
Rheumatic fever Ringworm	3	34	21	Crawford, Lee
body	21	336	298	Scattered
scalp	4	15	28	Benton, Pottawattamie,
				Webster
Rubella	2	179	98	Polk, Story
Rubeola	15	4331	113	Scattered
Scabies	116	1268	1135	Scattered
Streptococcal				
infections	738	12265	13715	Scattered
Tuberculosis				
total ill	14	99	123	Scattered
bact. pos.	-11	83	104	Scattered
Venereal disease:				
Gonorrhea Syphilis (other	371	5889	6493	Scattered
than P. & S.)	7	264	358	Scattered
P. & S. Syphilis	3	43	45	Cherokee, Johnson, Polk

Loborotory Virus Diognosis Without Specified Clinicol Syndrome Cytomegalovirus—5, Eaton's Agent infection—19, ECHO virus type—6, Woodbury—1, Herpes simplex—9, Herpes zoster—1, and Herpes unspecified—1.

Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences— National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma; prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures. necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants: causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido-all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction re ported occasionally with chlordiazepoxide HCI, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



Roche Products Inc. Manati, Puerto Rico 00701



Laetrile

JOSEPH T. LEIMERT, M.D. lowa City

In several states, physicians have been given the right to prescribe Laetrile legally. Legalization of the substance, however, in no way exempts physicians from the responsibility of justifying its use therapeutically for each patient with whom it is employed. As with any drug, this justification must include consideration of efficacy and potential toxicity. A critical assessment of Laetrile may become pertinent to Iowa physicians since legislation regarding its availability in this state is to be considered. The purpose of this communication is to provide a "Laetrile data base" which will, hopefully, be useful in objective evaluations.

What is Laetrile? "Laetrile" is an invented name referring to one or more chemical entities which are naturally occurring derivatives of mandelonitrile, a cyanide-bearing benzaldehyde (Figure 1). Glucose moieties are joined in beta-D linkage to mandelonitrile and to each other, and the number of glucose molecules is the identifying feature of each particular mandelonitrile glucoside. The compound most frequently specified as Laetrile is amygdalin (mandelonitrile-beta-D-glucose-beta-D-glucoside: Figure 2). However,

Information pertaining to the efficacy and potential toxicity of Laetrile is provided here in summary form. The author indicates that Laetrile, as represented by its prototype—amygdalin, has never been demonstrated to have objective efficacy in malignant disease, nor is there any theoretic rationale for such efficacy.

other related compounds have in the past been designated "laetriles," so that term cannot be assumed to be synonymous with amygdalin unless the chemical designation appears simultaneously. Used in the plural, "laetriles" may refer to the class of cyanophoretic glucosides. Other terms which have been used interchangeably with "laetrile" are: "nitrilosides," "cyanogenetic glucosides," and "Vitamin B-17."

MANDELONITRILE

Figure

Dr. Leimert is associated with the Department of Internal Medicine at the University of Iowa Hospitals and Clinics. He is a fellow of the American Cancer Society.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF FEBRUARY 1978

AMYGDALIN

Figure 2

PURPORTED UTILITY

Purported Utility of Laetrile in Cancer Management. Laetrile was originally promoted as a specific tumoricidal agent by the following mechanism, ¹² also summarized in Figure 3: the compound was purported to be hydrolyzed by beta-glucuronidase to mandelonitrile and glucose. Mandelonitrile would then yield benzaldehyde and hydrogen cyanide. The latter was said to be the anti-tumor principle, perhaps augmented synergistically by benzaldehyde. ^{2, 13} Normal cells were then to be able to transform the toxic cyanide into harmless thiocyanate by the action of an enzyme, rhodanese (thiosulphate transferase), claimed not to be present in malignant cells. Toxicity would therefore be selective for malignant tissue.

This theory is based on a number of assumptions which are incorrect in whole or part. First, the laetriles are not substrates of beta-glucuronidase, but are hydrolyzed by beta-glucosidase. The latter enzyme is present in only trace amounts in most tumors. Secondly, rhodanese is not evenly distributed in normal tissues and exists in disproportionately high concentrations in the liver and kidney. Therefore, to the extent that rhodanese is responsible for cyanide conversion, not all normal tissues would be equally protected from its toxic effects. In addition, rhodanese concentration in assayed tumors has been comparable to that in other metabolically active tissues. Finally, cyanide has been tested as an anti-neoplastic agent

BIOCHEMISTRY OF AMYGDALIN

Figure 3

and found not useful due to toxicity and lack of effectiveness.^{1, 8} Laetrile cannot, then, be effective for the reasons claimed.

A change in promotional emphasis occurred in 1970 when the laetriles were designated "Vitamin B-17." Cancer was interpreted as a deficiency disease for which the laetriles were said to be the missing dietary factor. Using this rationale, Laetrile was now said to be a cancer preventive agent. No longer a drug, it was now promoted as a natural, non-toxic and essential food product.

Once again, the assumptions were fallacious. There is no evidence that cyanophoretic glycosides are essential to the diet of any animal, including man. The laetriles were designated "Vitamin B-17" by proclamation, but they do not fit any one of the well defined requirements for inclusion of a substance as a vitamin.^{4, 8}

Perhaps the most frequently heralded claims for Laetrile are those supporting a palliative effect in patients with cancer. These include efficacy in analgesia, increased sense of well-being, increased appetite, weight gain and decreased "fetor." Direct evidence for such claims does not exist except in the form of myriad testimonials. 6, 19 The testimonials constitute uncritical opinion and are not acceptable evidence for efficacy. 6

ANIMAL TESTING

Summary of Animal Testing. Laetrile (amygdalin) has been tested in numerous animal tumor systems since the 1950's.^{5, 6, 9, 14, 20, 21} These experiments cover a wide dose range of amygdalin and have employed many tumor types used in screening cancer chemotherapeutic agents. In no instance has there been a beneficial effect in any end point studied for animals receiving amygdalin.

In 1973, preliminary results of an experiment conducted at Sloan-Kettering Institute were "leaked" to the press. These results appeared to show decreased metastasis from a spontaneous mammary tumor³ in a strain of mice developed by Daniel Martin. While widely acclaimed in the lay press as proof of Laetrile's efficacy, these results could not be repeated at Sloan-Kettering or in Martin's laboratory at the Catholic Medical Center.^{6, 17} They do not, therefore, constitute an exception to the unanimously negative studies in existing interpretable reports.

There has been considerable human use of Laetrile, but no controlled prospective human trials have been recorded. Once again, it must be emphasized that the voluminous testimonials are highly selected, 6, 16 poorly documented 6, 20 observations which uncover no new knowledge or support any claim. They remain unacceptable as evidence or justification for the use of Laetrile.

Toxicity. A claim which has been presented as support for the legal availability of Laetrile is that the compound is non-toxic. This opinion is an assumption which once again is not supported by data. In reality, the complete toxicology of amygdalin is not established, and patients cannot be assured of its safety.

The potential toxicity of the laetriles rests in cyanide poisoning.⁵ In Nigeria, consumption of cassava, a plant whose roots are rich in cyanophoretic glycosides, has been associated with chronic cyanide poisoning and goiter. 6, 11 Fatal cyanide toxicity has been reported from the consumption of ground apricot pits (the source of commercial Laetrile) as well.18 Unpurified plant sources of amygdalin or amygdalin ingested with a variety of uncooked foods may present the compound with the hydrolyzing enzymes necessary for rapid generation of cyanide in the alkaline medium of the duodenum.5, 18

Human toxicity with commercially distributed Laetrile has also been reported. Humbert et al¹⁰ have described fatal cyanide poisoning following accidental ingestion of one to five 500 mg tablets of amygdalin by an 11-month-old child. In addition, a variety of non-fatal untoward effects have been described.^{5, 19} Thiocyanate, the end-product of cyanide conversion, is goiterogenic.11 Finally, cyanogenetic compounds taken during pregnancy may result in developmental abnormalities in the off-spring.5 These examples are not meant to define the toxic spectrum of amygdalin, but to illustrate the potential for and uncertain extent of its possible adverse effects.

Another problem which augments the concern over toxicity is that Laetrile production is not generally controlled or supervised by regulatory

agencies. Therefore, the designation of a substance as "Laetrile" does not identify what is actually provided to the patient. Wide variation in amygdalin content has been noted in diverse batches of Laetrile15 as has product contamination5—including microbial.

LEGAL STATUS

Current Legal Status of Laetrile. Prescription of Laetrile is now legal in 14 states: Alaska, Arizona, Delaware, Florida, Indiana, Louisiana, Nevada, New Hampshire, Oklahoma, Oregon, Texas, New Jersey, Illinois and Washington. State governors of Illinois and New York have vetoed legalizing legislation (although the veto in Illinois was recently overruled), and consideration of such action was rejected in California.

The Commissioner of Food and Drugs⁶ has recently determined that "1. Laetrile is not generally recognized by qualified experts as a safe and effective cancer drug, and 2. Laetrile is not exempt from the pre-market approval requirements for new drugs by virtue of the 'grandfather' provisions of the [Federal Food, Drug and Cosmetic] Act." It was concluded, therefore, that interstate commerce involving Laetrile is illegal.

SUMMARY

Laetrile, as represented by its prototype—amygdalin, has never been demonstrated to have objective efficacy in malignant disease, nor is there any theoretic rationale for such efficacy. Palliative benefits are unsupported by acceptable evidence. The potential for untoward reactions including fatal toxicity is real but its full spectrum is at present undefined. These are facts which must be included in any review of a decision to use Laetrile in treatment of human disease.

ACKNOWLEDGMENT

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Pesticides and Lymphoma in Iowa

WARREN H. DeKRAAY, M.D. Ottumwa, Iowa

In 1974 the Environmental Protective Agency reported an increased incidence of malignancies in the New Orleans area. This finding was correlated with the carcinogenic pollutants in the Mississippi River from which New Orleans derives its drinking water.

In 1975 the Des Moines River water at Ottumwa was analyzed for chlorinated hydrocarbons, namely DDT, dieldrin and atrazine. These compounds were found to be present as residues of farm pesticides.1 Since Ottumwa drinking water comes from the Des Moines River, the possibility The possible linkage between lymphomas and water supplies is discussed here. Some evidence exists which shows increased dieldrin levels in drinking water may relate to lymphomas. Experience in Wapello County with lymphomas is evaluated.

of a cancer increase similar to that of New Orleans was considered.

In 1974 the American Cancer Society published a survey of malignancies in Iowa from 1969 through 1971. The malignancy showing significant increase in Wapello County, on a population basis, was lymphoma. An analysis of the lymphoma pattern throughout the state suggests there are more lymphomas in counties along the Des Moines and Nishnabotna rivers than might be expected.

Figure 1 is an Iowa map which shows the counties (shaded) with a lymphoma rate greater than 1.2, the expected rate. Marion, Dallas, and Wapello counties are in this category. Not all counties with cities along the Des Moines River obtain water supplies directly from the river. Pella in Marion County and Van Meter in Dallas County, both with high levels of lymphoma, use water from shallow wells along the river plain. Other cities along the Des Moines River, such as Oskaloosa in Mahaska County, and Keosaugua in Van Buren County, use deep wells and have a lymphoma incidence within normal limits. Des Moines receives 60 per cent of its water from gravel beds under the Raccoon River and the Polk County lymphoma rate is not elevated. In western Iowa

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Figure I

TABLE I
DIELDRIN LEVEL IN RIVER WATER

1975 Des Moines River at Ottumwa	3	p.p.	Trillion
1975 Raccoon River at Van Meter	7	p.p.	Trillion
1975 Red Rock Dam near Pella	18	p.p.	Trillion
1970 Nishnabotna at Hamburg	65	p.p.	Trillion
(pp. = parts per trillion)			

along the Nishnabotna River, Cass, Montgomery and Fremont counties have high lymphoma rates.

An examination of the map reveals a block of counties in northwest and central Iowa that have a high rate of lymphomas. A direct association with either a river or shallow wells in these areas cannot be determined.

At a congressional hearing in 1974, laboratory evidence showed dieldrin was a carcinogen.⁴ As a consequence, river water levels of dieldrin have been considered to have a possible relationship with the development of lymphoma. As a base line, the Mississippi River at New Orleans has a dieldrin level of 7 pp trillion. Table I shows the dieldrin level of river water in several areas in Iowa. These figures vary from month to month according to rain run-off and planting season. The figures listed are the highest recorded for the year. The most obvious correlation was the low level of dieldrin in the drinking water of cities that obtain water from wells and do not have a high rate of lymphomas. (Table II)

Dieldrin in catfish has surpassed accepted toxic levels in several areas. The FDA established a dieldrin level of 300 pp billion as toxic. Catfish from several Iowa rivers have been studied for dieldrin content.² (Table III) In 1972 Nishnabotna River fish were considered inedible because of the toxic levels of dieldrin in their tissues.

Northeast Iowa streams, which generally re-

TABLE II
DIELDRIN LEVELS IN IOWA CITIES USING WELL SYSTEMS

	_	
Marshalltown (Marshall Co.)	0	p.p. Trillion
Cedar Rapids (Linn Co.)	0	p.p. Trillion
Ames (Story Co.)	0	p.p. Trillion
Waterloo (Blackhawk Co.)	0.5	p.p. Trillion
Sioux City (Woodbury Co.)	0.5	p.p. Trillion
Dubuque (Dubuque Co.)	0	p.p. Trillion
Fort Dodge (Webster Co.)	0	p.p. Trillion
Oskaloosa (Mahaska Co.)	0.5	p.p. Trillion
lowa Falls (Hardin Co.)	0.5	p.p. Trillion
		• •

TABLE III
DIELDRIN LEVELS IN CATFISH

Des Moines River at Ottuma	NA	
Nishnabotna at Hamburg	1600 p.p.	Billion
Lake Red Rock	570 p.p.	Billion
Raccoon River	630 p.p.	Billion
Coralville Reservoir	1440 p.p.	Billion
(pp. = parts per billion)		

ceive little farmland run-off, have low dieldrin levels in water and in catfish and are below the danger level. The amount of catfish eaten by lymphoma patients was not investigated.

Following the 1974 congressional hearing, dieldrin sales were banned by the FDA. It will be interesting to see if the ban on dieldrin will alter the level of lymphomas in Iowa after 1974.

IN WAPELLO COUNTY

The remainder of this report will study the lymphomas in Wapello County between 1952 and 1972. All the patients with lymphomas are not represented since many sought medical care elsewhere. Between 1952 and 1972 110 patients were diagnosed as having either Hodgkin's disease or non-Hodgkin's lymphoma at the Ottumwa Hospital and St. Joseph Hospital. The ages of all the lymphoma patients are presented in Table IV. Most were between ages 60 and 80 (58 out of 110 patients).

Classification of these patients into Hodgkin's (34%) and non-Hodgkin's lymphoma (66%) is noted in Table V. In most series Hodgkin's disease represents 40 per cent of all lymphomas.

The highest incidence of lymphoma is in the 61-70 and 71-80 year old age groups with the non-Hodgkin's lymphoma being the major type. The age pattern of Hodgkin's did not follow the customary bimodal curve that is supposed to occur in the third and sixth decades.

TABLE IV

AGES OF ALL LYMPHOMA PATIENTS

10-20 Years	5			6 Patients
21-30 Years	·			5 Patients
41-50 Years				17 Patients
81-90 Years				4 Patients
	Females-55	Males-55	Total-110	

TABLE V
LYMPHOMA CLASSIFICATION

Non-Hodgk	Non-Hodgkin's (72)		n's (38)
Age	No.	Age	No.
0-20	I	10-20	5
21-30	.,	21-30	4
31-40	6	31-40	2
1-50	10	41-50	7
61-60	8	51-60	4
1-70	22	61-70	6
71-80	20	71-80	10
1.00	4	81-90	0

Table VI lists the number of cases diagnosed annually from 1952 to 1972. Between 1952 and 1964 (12 years) there were only two years when over five cases occurred. There were 43 cases during the 12-year period. Between 1964 and 1972 (8 years) every year had over five cases to total 67 cases. In general the pattern suggests an increased number of lymphomas diagnosed in the late 1960's as compared to the 1950's.

Cervical adenopathy was the presenting clinical abnormality in 44 per cent of patients either as a result of lymphatic drainage from the chest or as the primary lymphatic abnormality.

No attempt was made to record histological type because of the several pathologists involved, plus the changes in histological classification in the past few decades. Also, no staging operations were performed.

Local radiation therapy was the main treatment for all patients initially, with recurrences usually treated with nitrogen mustard. Only a few patients in the early 1970's received combination chemotherapy.

One theory as to the causation of Hodgkin's is that a preceding upper respiratory infection

TABLE VII
MONTHS LYMPHOMAS WERE DIAGNOSED

Month	No.	Month	No.
January	13	July	10
February	9	August	
March	11	September	9
April	6	October	
May	4	November	15
June	8	December	7
	То	tal110	

TABLE VI
NUMBER OF CASES DIAGNOSED YEARLY 1952-1972

Year	No. of Cases	Year	No. of Cases
1952	3	1963	0
1953 .	, 4	1964	7
1954 .		1965	7
1955 .	8	1966	9
1956 .	2	1967	9
1957 .	5	1968	7
1958 .	5	1969	9
1959 .	4	1970	5
1960 .	I	1971	6
1961 .	6	1972	8
1962 .	4	Total	110

alters the lymphocytes resulting in the proliferation of altered lymphoctyes. Since the winter months correspond to more respiratory infection this theory would result in more lymphomas diagnosed during winter than summer. Table VIII shows no support for this theory.

Five-year survival figures revealed 32 of 110 patients (29%) were alive at five years; 14/38 patients (37%) with Hodgkin's disease and 18/72 patients (25%) with non-Hodgkin's lymphomas. Only 17/110 patients (15%) were alive and well and presumed to have been cured of their disease. (Table VIII)

The National Cancer Institute Hodgkin's group treated during 1964-1968 showed a 40 per cent five-year survival in 1973.⁵ Kaplan, using combination chemotherapy and radiation, recorded a five-year survival rate of 65 per cent in Hodgkin's.⁶

TABLE VIII
SURVIVAL FIGURES

		_	_
5 Year survival	32/110	or	29%
Hodgkin's	14/38	or	37%
Non-Hodgkin's			
Only 17/110 cured of the disease or 15%			

TABLE IX
COMPARISON OF LYMPHOMA CASES

Olms	ted County %	Wapello County %
% Hodgkin's	22	35
% Non-Hodgkin's		65
Non-Hodgkin's 5-year survival		25
Number of patients	167	110

In 1973 the Mayo Clinic reported 167 cases of malignant lymphoma diagnosed among Olmsted County residents in the 25 year period from 1945 to 1969. A comparison between Wapello County and Olmsted County data is presented in Table IX.

With the dramatic progress in treatment of malignant lymphoma by extended radiation and chemotherapy, during the next 10 years the five-year cure rate should be greatly improved.

SUMMARY

The incidence of lymphomas in Iowa communities with drinking water from rivers and shallow wells is related to communities with drinking water from other sources. There is some evidence increased dieldrin levels in drinking water may be related to more lymphomas, but the results are inconclusive. Also reported is the 20-year study of lymphomas in Ottuma, Iowa. A five-year survival rate of 29 per cent is reported, with a five-year no evidence of recurrence rate of 15 per cent. With the banning of dieldrin, plus the rapid progress in lymphoma treatment, a reevaluation of the disease at a later date will be interesting.

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MEDICAL MISCELLANY

TITLE XIX DEVELOPMENTS... Prospects are likely Iowa Medicaid providers will be asked to file signed agreement forms with the State Department of Social Services sometime during 1978. Federal requirements to this end are being pushed by HEW. To now the language on the claim form has been construed as sufficient to keep Iowa in compliance. This issue was discussed recently at a meeting involving representatives of the IMS Committee on Public Assistance and officials of the Department of Social Services. The IMS is resisting implementation of this provision in Iowa.

LEGISLATIVE INTERESTS... If tradition is a gauge key legislation relating to appropriations will await the closing days of the session. The Society is supporting adequate funding for the Medicaid program, for the Family Practice Residency program and for the Board of Medical Examiners.

OTHER BILLS... Likelihood of other medicallyrelated legislation receiving floor attention in either the House or Senate is uncertain in the early weeks. Involved here are such measures as expansion of the optometric practice act, Senate consideration of the House-passed professional liability bill, radiology/pathology relations with hospitals, prescription writing authority for physician's assistants, etc.

REORGANIZATION STUDY... An IMS ad hoc committee to study aspects of the Society's organizational structure will meet in February. The review is being undertaken at the behest of the Board of Trustees with any emerging recommendations planned for submission to the House of Delegates. Any comments or recommendations from the general membership are welcome.

NEW U. OF I. DIVISION... The U. of I. Department of Neurology has created a new division of behavioral neurology for service and research in the aphasias and the syndromes of organic disorder of brain function. A. R. Damasio, M.D., is in charge of the division.

Changes in Patterns of Pulmonary Perfusions and Ventilation After Radiation Therapy of Intrathoracic Malignancies

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HUSSEIN M. ABDEL-DAYEM, M.D.,
FERIAL A. TEWFIK, M.D., Ph.D., and
HOWARD B. LATOURETTE, M.D.
lowa City

THE VALUE of lung scanning in following changes of pulmonary perfusion after radiation therapy has been documented. However, the study of pulmonary ventilation is also valuable in the followup of such patients. The physiologic changes in ventilation following radiation therapy has been reported by using spirometric methods. 1 Radioisotopic techniques used for evaluating pulmonary perfusion and ventilation have many advantages. They are simple, accurate and give good indication of distribution. They are safe as regards the dose of ionizing radiation to which the patients are exposed and, hence, can be repeated. This report combines perfusion lung scanning with pulmonary ventilation studies to follow-up patients receiving radiation therapy to the thorax because of intrathoracic malignancies.

METHOD AND MATERIAL

Pulmonary perfusion was studied by I¹³¹ Macroaggregated Albumin lung scanning. Pulmonary ventilation was studied by using radioactive Xenon¹³³ dissolved in saline administered intravenously. Xenon is an inert, freely diffusible gas which readily passes through the pulmonary capillaries. Approximately 95% of the injected Xenon is discharged into the alveoli during its

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Discussed here are the early and later changes in pulmonary perfuson and ventilation. Late changes appear three months after treatment and denote the start of chronic lung reactions.

first passage through the lung. The gas is, therefore, eliminated rapidly from the body with exhalation. Whatever the route of administration, the biological half life of Xenon is a few minutes, in most individuals probably less than 15 minutes.

The anatomical distribution of the neoplasms in the thoracic cavity was as follows:

Site	No. of	f Co	zse:
I. Bronchial carcinoma			19
A. Peripheral lesions	1	4	
Right upper lobe	9		
Right lower lobe	1		
Left upper lobe	3		
Left lower lobe	1		
B. Hilar lesions		5	
Right hilum	2		
Left hilum	2		
Subcarinal lesions involving carina and			
both right and left mainstem bronchi	1		
II. Mediastinal lesions			4
Total			23
The pathological types were as follows	s:		
I. Bronchial carcinomas	- 1	9	
Well differentiated squamous cell carcinoma	9		
Undifferentiated squamous cell carcinoma	7		
Adenocarcinoma	1		
Not biopsied (positive sputum cytology)	2		
II. Mediastinal lesions		4	
Lymphocytic lymphoma	1		
Hodgkin's disease	I		
Metastatic seminoma	1		
Carcinoma of the esophagus	1		
Total	2	:3	
(Please turn to page 56)			

PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy—and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

ANA

THE PHARMACEUTICAL MANUFACTURERS ASSOCIATION 1155 FIFTEENTH ST., N. W., WASHINGTON, D. C. 20005

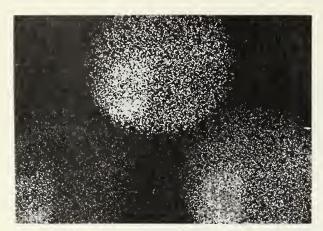


Figure 1-a. Undifferentiated carcinoma in the lingular segment in left lung. Xenon¹⁹³ washout, posterior view 6-7 minutes before treatment showing retention in left lower lung field.

(Continued from page 54)

These patients were treated using anterior and posterior opposing fields to the involved areas. The dose varied between 3000 rad in four weeks to 6000 rad in six weeks according to the pathological variety, site and extent of the neoplasm.

RESULTS

- I. In the 14 cases of peripheral lesions the results were as follows:
- 1. There was no improvement in perfusion nor in ventilation in seven cases in the studies done four to eight weeks after treatment. One patient in this group developed areas of Xenon¹³³ retention in the irradiated volume two weeks after the end of treatment. However, this finding did not persist in subsequent studies.
- 2. Five patients showed improvement in the perfusion defect of the affected lobe. Two of these had initial Xenon¹³³ retention that improved following treatment. (Figure 1: a & b)
- 3. Two patients with right upper lobe carcinoma received more than 4000 rad in four weeks. Although they showed slight improvement in the perfusion defect in the early post-treatment period, they started to develop gradual deterioration of the perfusion defect after the third month. The defect appeared to be limited geographically to the irradiated field (Figure 2: a, b, c, & d) and was not associated with Xenon¹³³ retention.
- II. In the five cases of hilar lesions the results were as follows:
- 1. Only two cases showed initial improvement of perfusion following treatment. In spite of that initial improvement, one of these two cases—who received 4500 rad in four and one half weeks—started to show deterioration of perfusion and

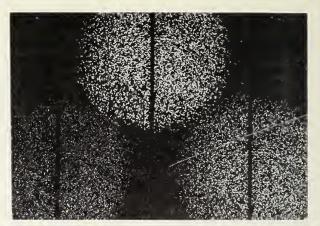


Figure 1-b. A duplicated view is shown four weeks after treatment indicating no areas of Xenon $^{\rm 130}$ retention.

retention of Xenon¹³³ in the irradiated side from the third month onward. This was associated with radiological changes of pulmonary fibrosis, pleural thickening and underlying partial collapse of the irradiated lung.

- 2. In the other three cases, their perfusion defects did not improve and became worse with time despite treatment.
- III. In the four mediastinal lesions, improvement in perfusion and ventilation defects were noticed with 3000 rad in three weeks in the case of mediastinal lymphocytic lymphoma, Hodgkin's disease and seminoma. The case with esophageal

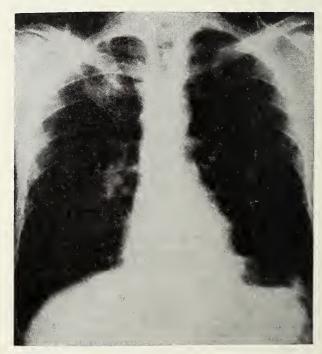


Figure 2-a. Adenocarcinoma of right upper lobe, chest x-ray PA view showing an opacity in the right upper lung region.

carcinoma showed no improvement in the perfusion or in the ventilatory defects.

DISCUSSION

The decreased pulmonary perfusion due to intrathoracic malignancies is due to pressure on or infiltration of-by the tumor mass or the involved lymph nodes-either the feeding pulmonary artery or the supplying bronchial lumen causing regional hypoxia.2 A third explanation is the tumor gets its blood supply from the bronchial arteries and not from the pulmonary arteries. These three aetiological factors will act together although one factor may be more responsible than the others in producing the pulmonary perfusion abnormalities, depending on the size, site and spread of the neoplasm. The effect of intrathoracic malignancies on ventilation would depend on the patency of the bronchial lumen. There is no retention or delayed washout of Xenon¹³³ in the region of the tumor. Areas of retention will occur in adjacent segments due to partial bronchial obstruction, either by the tumor or by the enlarged hilar lymph nodes.

Patients with intrathoracic malignancies usually have old fibrotic lesions or associated chronic obstructive lung disease. These associated pulmonary lesions will affect pulmonary perfusion and ventilation, thus complicating the picture and making the study of pulmonary ventilation by spirometric methods nonspecific. The use of isotopic techniques to evaluate the degree of perfusion in different regions of the lungs was recommended by Germon et al.1 Serial lung scanning to evaluate the response of irradiated tumors was further suggested by Maynard et al3 and Goldman et al.4 The use of intravenous Xenon¹³³ dissolved in saline for study of pulmonary ventilation has been discussed by different authors, 5-10 but by reviewing the literature we are not aware of previous reports of serial isotopic study of pulmonary ventilation before treatment and at various intervals following radiation therapy of intrathoracic malignancies.

Changes in pulmonary perfusion and ventilation following radiation treatment to intrathoracic malignancies can be classified into early changes immediately following treatment and late changes seen after the third-month post-radiation treatment. The early perfusion and ventilation changes depend on the degree of participation of the different aetiological factors in impairing the pulmonary perfusion and ventilation as well as



Figure 2-b. Perfusion lung scan, posterior view, before treatment, showing diminished perfusion to the right upper lung zone.

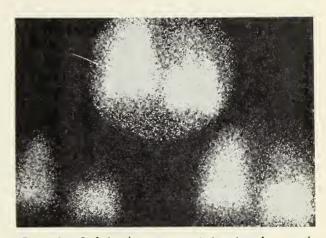


Figure 2-c. Perfusion lung scan, posterior view, four months after treatment showing worsening of the perfusion defect in the right upper lung with straight edges having the shape of the treatment field.



Figure 2-d. Xenon¹⁰³ washout, 6-7 minutes, posterior view showing no areas of retention in both lung fields.

on the response of the tumor to the treatment given. Shrinkage of the tumor and/or the involved lymph nodes may improve pulmonary perfusion if the impairment was mainly due to pressure or infiltration of one of the bronchi or pulmonary arteries. This improvement may be seen in the area of the tumor or in the adjacent pulmonary segments. During the early changes after treatment, which corresponds to the phase of acute radiation pulmonary reactions, where there is congestion and thick tenacious bronchial secretions, we observed small areas of Xenon¹³³ retention in the irradiated normal lung tissue adjacent to the tumor mass. Later, clearance of these foci Xenon¹³³ retention was noticed due to subsidence of the acute radiation reaction phase.

Late changes in the perfusion and ventilation appear three months after treatment with doses higher than 4000 rad in four weeks. These changes denote the start of the chronic radiation lung reactions. The radiation changes in the pulmonary parenchyma are associated with diminished perfusion without retention of Xenon¹³³. These changes coincide geographically with the size of the radiation field. Radiological signs of pulmonary fibrosis, partial collapse of underlying lung and pleural thickening may appear following such doses of radiation therapy associated with perfusion and ventilation impairment. None of these late perfusion and ventilation changes were noticed in patients treated with doses of 4000 rad in four weeks or less.

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Editorials

M. E. ALBERTS, M.D., Scientific Editor

THE LAETRILE ISSUE

The November-December issue of the FDA Drug Bulletin presents an update on Laetrile. The report refers to the death of a small child from cyanide intoxication after accidental ingestion of five tablets of Laetrile and the probable cause of death of a 17-year-old girl being from ingestion of several ampules of Laetrile. More and more tragic cases of this type seem to be surfacing where cancer patients are being diverted from effective therapy.

Laetrile is actually a glycoside (amygdalin) containing cyanide, a potent and rapidly acting respiratory enzyme poison. Adverse reactions to Laetrile include hypotension, hemoglobinuria, gastrointestinal hemorrhage, headaches and allergic reactions. Chronic ingestion of cyanogenic compounds similar to amygdalin may lead to nutritional ataxia, goiter and in offspring of women who ingest these substances during pregnancy, various birth defects.

This issue of the JOURNAL presents an excellent and concise review of present knowledge on Laetrile. Physicians should be aware of the potential for harm brought about by this substance. Further, physicians should be aware of the legal implications of prescribing Laetrile. Passage of state legislation does not protect dispensers or sellers of Laetrile from applicable civil or criminal sanctions under the Federal Food, Drug and Cosmetic Act. Furthermore, such state legislation does not provide immunity from malpractice suits.

Fourteen states have enacted legislation pertaining to Laetrile. In two states governors have vetoed legislation; in Illinois the veto was overridden; a bill was voted down in California. Clearly, there is reason for those in positions of government to take a second look at the lack of scientific support for this therapy and at the consumer protection issues that may be involved in the total picture.

It is sincerely hoped the present session of the Iowa General Assembly will allow for mature foresight and insight in any consideration of Laetrile legislation. Our lawmakers need to give forthright, mature consideration to all the ramifications of such a substance, rather than being swayed by the emotional pleas and demands of "freedom of choice" do-gooders. Freedom requires responsibility—responsibility to all—instead of self-centered interests which operate under the guise of freedom.—M.E.A.

IMMUNIZATION LAW

Well, doctor, how did you and your office assistants enjoy the recent immunization card roundup? It was as wild as any rodeo or circus one could imagine. It has been the wildest mess I have ever experienced in my office, and I have endured paper-work as the medical officer of a Navy Recruiting Station.

Records of children not seen for years had to be retrieved from the inactive files in the basement. Parents became irate if the information they needed (and should have had anyway) was not provided immediately. We have been accused of being mercenary because it was required to give

EDITORIALS

(Continued from page 59)

Rubella vaccine to older boys—and then when the whole mess was nearly resolved the rules were changed and Rubella vaccination of the older students was no longer required. The law did not fit the previous practices of immunization, so we had to explain why various "boosters" were required, while the jaundiced eye of the parents saw dollar-signs in the eyes of the medical profession. Confusion? Yes! No wonder why some people lose faith in us. But so much for the griping.

The intent of the law is good. Children should be immunized for the public good as well as for their own protection. I agree that a requirement for entering school should be a complete immunization of the child against the devastating diseases that still prevail. That is as important as the provision by a community of safe water and adequate provisions for sanitation. Those few who would not be immunized are simply riding on the protection of the majority in a parasitic fashion.

In the future we will have only to contend with

the children entering school for the first time. Yet, they all cannot have their pre-school examinations and their immunization up-date done in July and August. Some provision must be made for flexibility short of a lot of paper work. I have made it a practice through the years to do annual physical examinations insofar as possible in the month of the child's birthdate. Thus, if a child were born in September through December, his examination would not be done until after he had entered school. Could not the requirement of the law be extended to December 31 of the year in which the child enters school? Then there would be a smoother transition, less paper work, fewer temper flare ups, less cost to parents due to second trips to the physician, and a warmer feeling (instead of fiery innuendos) by all concerned.

Oh, yes, one more thing. What about 1987-1988, when all the presently immunized children will be due for "boosters"? Are we going to do something about that or just ignore it? If they are not re-immunized will they be expelled from school? Continuation of a good program is imperative.—M.E.A.

CONGRESS & MEDICINE: 1977

Despite a hard-line attitude among many wielders of political power and influence in Washington, every major Congressional move against medicine in 1977 was defeated, stalled, or defanged.

The achivements reflected not only the AMA's vigor in Washington but its amplified communication and liaison with component societies, specialty societies, other health-care organizations, insurers, and businessmen.

Defeated were:

- A clear-cut Congressional sanction for Federal Trade Commission jurisdiction over non-profit organizations, including medical societies. Denial of that sanction means the FTC's current forays against physicians and their organizations remain subject to the kind of challenge that the AMA has mounted.
- Subjection of physicians' offices to certificate-of-need programs, as called for in several

versions of hospital "cost-containment" proposals.

Stalled were Administration proposals for price controls on hospitals and a fixed national dollar limit on capital expenditures of health institutions.

Defanged was H. R. 3, the Medicare-Medicaid Anti-Fraud and Abuse Amendments signed into law by President Carter as P. L. 95-142.

Our AMA federation supported the basic fraud and abuse control principle of H. R. 3 but successfully achieved such modifications as these:

- The definition of "shared health facilities"—originally encompassing almost all group practices—is narrowed more closely to the originally intended "medicaid mills" and the like. The practitioner and groups of practitioners are generally exempted from H. R. 3's cumbersome reporting and disclosure requirements.
- Medicare-Medicaid review programs duplicating those of PSROs are waived, provided the latter are found to be performing their duties effectively. Also, authority for "program review

CONGRESS & MEDICINE: 1977

teams" to evaluate medical care—duplicating PSRO review—is repealed.

• The period for a PSRO's conditional status, and the starting time for ambulatory-care review under PSRO, are extended.

Those are just a sample of the changes our federation achieved in H. R. 3—but they symbolize the complexity of its many annual legislative tasks.

W. D. 'SHORTY' PAUL 1899-1977

"Shorty" was a busy, hardworking character. He died December 19, 1977, in Iowa City. He pioneered in many ways in medicine at the College. In addition to his well known "Bufferin" and "Rolaids" activities, he did much early work in gastroscopy and fever therapy, for example. He was instrumental in starting the school of physical therapy, became interested in the care and training of athletes, and served a long time as Iowa team physician.

In 1977 the AMA stepped up its liaison with both Congress and the White House, and the AMA all parts of the federation worked closer than ever on these critical issues to achieve these legislative results.

Organized medicine will face many critical legislative issues this year, including amendments to the Planning Act, many other Public Health Service programs, and National Health Insurance. Medicine must continue to pull together on legislation in order to protect physicians and patients from legislative acts that would reduce the quality of medical care, increase costs, or reduce access.

Before that he spent many years in the Department of Internal Medicine outpatient and admitting areas where he loved teaching medical students. Many of them—including me—learned a great deal from him, especially in physical diagnosis.

I knew him also as a behind-the-scenes champion of any medical student in scholastic difficulty, prodding and encouraging harder work to make the grade. He often "stole" time from his kind wife, Louise, to help a student or work on a project.

"Shorty"—for a little guy you cast a long shadow which we won't forget for a long time!—L. W. SWANSON, M.D.

CONTINUING EDUCATION COURSES & CONFERENCES

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

February 1	Ophthalmology Clinical Conference	March 15	Diet Therapy U.S.A.
February 3	Otolaryngology Clinical Conference	March 23	Radiation Therapy Seminar
February 14-17	Refresher Course for the Family Physician	March 29-30	Conference on Perinatal Medicine, Des Moines
February 23	Radiation Therapy Seminar	April 3-7	Intensive Course in Pediatric Nutrition
March 1	Ophthalmology Clinical Conference	April 4-6	Iowa Medical Society Scientific Meeting
March 1-3	Religion, Ethics, and Health Care Delivery in America	April 5	Ophthalmology Clinical Conference
		April 7	Otolaryngology Clinical Conference
March 3	Otolaryngology Clinical Conference	April 7-8	Great Plains Medical Student Oncology Con-
March 4	Iowa Radiological Society		ference
March 13-16	Cardiology Today	April 27	Radiation Therapy Seminar



Educationally Speaking



by R. M. CAPLAN, M.D.

CAN YOU FLUNK A CME COURSE?

The current vocabulary in the world of CME makes much use of the phrase "Category I." You probably have too. But if you know where it comes from and what it's supposed to mean, you're a rare bird. Let me now provide what you need to become a rare bird.

The AMA first established its Physician's Recognition Award in 1969. The award was, and still is, a voluntary matter. The applicant for the award needs to accumulate a total of 150 hours of continuing education over a continuous threeyear span. Because learning styles and activities differ greatly, considerable leeway was given in the types of activities that could be counted toward the award. Those who dreamed up the requirements identified six different categories of activity. They never said Category I activities were necessarily or automatically better in their potential to provide more learning. But Category I activities had certain characteristics that the designers thought were likely to provide a higher quality educational experience. And they saw fit to insist that 60 of the 150 total hours be of the Category I variety. The remaining 90 hours could

Dr. Caplan is Associate Dean for Continuing Medical Education at The University of Iowa College of Medicine.

FEBRUARY REFRESHER

Last call for the 1978 Refresher Course for Family Physicians to be held February 14-17 at the University of Iowa. Speaking of credit, as is the case above, the Refresher Course is acceptable for 24.5 hours of prescribed hours by the American

be accumulated in a huge number of combinations.

A Category I activity is presented by an accredited educational institution. In achieving the status of "accredited," the organization has demonstrated that it has the facilities and "know-how" to assure a top-quality educational offering. That which is Category I will be characterized by its planning and organization and expert faculty; it will not be casual, random, or haphazardly miscellaneous. It will be planned as an educational unit, designed to accomplish some defined instructional purposes. There will be an identified body of knowledge, skills and/or attitudes that the student can expect to acquire as a result of conscientious participation in that particular offering.

Perhaps a simple way to decide whether an educational exercise has what it takes to be Category I is to decide whether it would be potentially "flunkable." If so, and if offered by an accredited sponsor, then it has the makings of a Category I activity. Now, whether well-motivated practicing professionals need or ought to be placed in the "jeopardy" of a potential flunk is a terribly important philosophical quandary that I might attempt to discuss at another time.

There! From now on when you read or say "Category I" you'll know what you're talking about. And believe me, you will be reading and saying Category I a lot in the future.

Academy of Family Physicians and provides a similar value of Category I credit for the Physician's Recognition Award of the American Medical Association.

The U. of I. College of Medicine is an entity authorized by the AMA to assign Category I credit for qualified CME programs.

HISTORICAL MILESTONES—THE WINTER OF '36

by M. G. BOURNE, M.D.

I remember we had severe snowstorms the winter of 1936. One morning after an especially severe blizzard I was urged to make house calls in the country north of town. It was impossible to transport a patient to the local hospital because of huge snowdrifts on the highways.

I said I would try. A young lawyer friend took me two miles in his car to meet a team and sleigh. On arrival at the designated point I could see the team and sleigh about a quarter of a mile away unable to come further because of the drifts. Despite the biting cold and blowing snow, with my bag held high, and much of the time wading in deep snow in fields adjacent to the highway, I made it to the sleigh. We rode about four miles to my patient, a 16-year-old boy who had a common

intermittent ice packs, aspirin and gave reassurance.

Then into the sleigh for a five-mile ride and a

painful complication of mumps. I recommended

Then into the sleigh for a five-mile ride and a half-mile walk to meet a second sleigh that took me to see a patient with bronchial asthma. Cough medicine, a shot of adrenalin and more reassurance brought considerable relief. Again into the waiting sleigh and a four-mile trip to visit a patient with pneumonia. I prescribed cough medicine, aspirin and gave more reassurance.

It was about four o'clock when I met my lawyer friend (at an agreed location) on a main highway and returned home. My patients all recovered, more perhaps as a result of their good physical condition and the personal reassurance than from the treatment. Thus ended one episode in the life of a small town doctor in the winter of 1936.

This historical vignette has been prepared by M. G. Bourne, M.D., who practiced in Algona for some 40 years,





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by BETTY EHLERT, CMA-A

JEANNE GREEN INSTALLED

Jeanne D. Green, CMA-A, Davenport, was installed as President of the American Association



CONVENTION HIGHLIGHTS

1,069 medical assistants, educators, students and physicians participated in a week of educational programs, workshops and other activities under the general theme "AAMA: Golden Gate to Achievement." The program included the Rev. Dr. Mwalimu Imara of Boston discussing problems facing health professionals who deal with the terminally ill; David Rubsamen, M.D., J.D., describing the current status of malpractice litigation and commenting on the medical assistant's role in helping her employer avert malpractice suits; Jokichu Takamine, M.D., recent chairman of the Board of Trustees of Los Angeles County Medical Society, looking "Beyond the Window" in referring to the receptionist's window in the

of Medical Assistants at the twenty-first annual meeting in San Francisco in October. Mrs. Green is employed by James F. Bishop, M.D., Davenport.

A luncheon was given in her honor in San Francisco by members of the Iowa State Society with national officers as guests and Iowa members serving as hostesses.

Other 1977-78 officers are Vice President: Jean Mobley, CMA-AC, Texas; President-Elect: Wini A. Schwartz, CMA-AC, California; Secretary-Treasurer: Dorothy Hartel, CMA-A, Maryland; Trustees: (five elected to a two-year term): Norma Domanic, LPN, Illinois; Yvonne Ingwersen, Nevada; Dorothy Sellars, CMA-A, Virginia; Helen Torricer, CMA-AC, Hawaii, and Mabel Ann Veech, Kentucky.

medical office, and discussing the human relations concerns of physicians and medical assistants in helping patients.

AAMA, State of California, hosted a coffee honoring retiring Physician Advisory Board Chairman Peary B. Berger, M.D. Other physician advisors are Drs. William Oakes, Mississippi; Richard Penfold, Colorado; John Wright, Illinois; William Lohr, Oregon; Ira Long, Tennessee, and Edgar Palarea, California.

The convention activities culminated with the installation of new officers at the Inaugural Banquet and at that time Joan C. Michaels, CMA-A, of Charlotte, North Carolina, handed the gavel to President Jeanne D. Greene, CMA-A of Iowa.

The 1978 national convention will be held in Boston.

About IOWA Physicians

Dr. John W. Eckstein, dean of the U. of I. College of Medicine, has been named president-elect of the American Heart Association. Dr. Eckstein was vice president of the AHA in 1969 and has held various other positions in the Association. He was president of the Iowa Heart Association in 1965. . . . Dr. Dale Weber has been named medical staff president at Clinton's St. Joseph Mercy Hospital; Dr. Salvador R. Borja, president-elect, and Dr. Alfonso Torres, secretary-treasurer. All are Clinton physicians. . . . Dr. John McGee, Burlington, has been named chairperson of the HSA Subarea V Advisory Council in eastern Iowa. . . . Dr. H. A. Van Hofwegen, Spencer, participated in a recent advanced cardiac life support training program in Okoboji sponsored by the Iowa Heart Association. Dr. Van Hofwegen is chairman of the IHA Emergency Cardiac Care Subcommittee. . . . Dr. Charles Bendixen was named president of Marshall County Medical Society; Dr. Carl O. Lester, vice president; and Dr. B. F. Peters, secretary-treasurer. All are Marshalltown physicians. ... Dr. Wayne E. Rouse, Boone, has been appointed to the Committee on Cancer of the American Academy of Family Physicians. This committee gathers data on incidence and treatment of all forms of cancer and disseminates information on cancer therapy to Academy members.

New officers of the Wright County Medical Society are Dr. Robert F. McCool, Clarion, president; Dr. Glen J. Hruska, Belmond, vice president; and Dr. Richard A. Young, Clarion, secretary-treasurer.... Dr. Behrouz Rassekh, a Council Bluffs neurosurgeon, and Dr. A. Ivan Pakiam, a Des Moines plastic surgeon, were named fellows of the International College of Surgeons at a recent annual meeting in New Orleans.... Dr. Robert L. Swaney has been elected president of St. Luke's Methodist Hospital in Cedar Rapids. CR physicians serving with Dr. Swaney are—Dr. J. W. Reinertson, vice president and president-elect and

Dr. William E. Kettelkamp, secretary-treasurer. . . . Dr. Lawrence Burdge and Dr. Beth Penrose have joined the staff at Medical Associates in Cedar Falls. Dr. Burdge, an obstetrician and gynecologist, received the M.D. degree at the Cornell University Medical School; interned at the University of Miami Hospital in Florida; and served his residency in obstetrics and gynecology at Genesee Hospital in Rochester, New York. Prior to locating in Cedar Falls, Dr. Burdge was in the U. S. Air Force. Dr. Penrose, an anesthesiologist, received the M.D. degree at University of Kentucky Medical School and interned at Henry Ford Hospital in Detroit, Michigan. Dr. Penrose has been in private practice in Morehead, Kentucky, since 1971. . . . Dr. Daryl Doorenbos is president of Floyd Valley Hospital medical staff; Dr. James Powell, vice president and Dr. Donald Faber, secretary. All are LeMars physicians.

Dr. Lewis E. January, professor in Department of Internal Medicine at U. of I. College of Medicine, has been named to the National Committee of the Joffrey Ballet, a select group of 10 Joffrey ballet enthusiasts who have helped raise funds and develop audiences in their own regions. . . . The following Clinton physicians are new officers of Clinton County Medical Society-Dr. Jerry Kreiter, president; Dr. Surendra Kumar, vice president; and Dr. William Buhrow, secretary-treasurer. . . . Dr. Dorothy J. Gildea has been named president of Scott County Medical Society; Dr. Dennis L. Miller, president-elect; Dr. Franklin J. DeRusso, vice president; Dr. Paul L. Rohlf, secretary; Dr. James A. Holte, assistant secretary; and Dr. D. A. Bovenmyer, treasurer. All are Davenport physicians. . . . Dr. Raymundo A. Teheng will join the Gilfillan Clinic in Bloomfield in July. Dr. Teheng received his medical education at Far Eastern University at Manila, Philippines; interned at St. Michael's Hospital in Milwaukee, Wisconsin; and had a residency in obstetrics and gynecology at Misercordia-Lincoln Hospital in Bronx, New York. . . . The following Cedar Rapids physicians are new officers of Mercy Hospital medical staff—Dr. Dale Roberson, president; Dr. Thomas J. McIntosh, president-elect; and Dr. John P. Jacobs, secretary-treasurer. . . . Dr. C. A. Cardenas has been re-elected president of medical staff at Memorial Community Hospital in Lake City; Dr. W. A. McCrary, vice president and Dr. J. C. Comstock, secretary. All are from Lake City.

DEATHS

Dr. Harold E. White, 83, retired Knoxville physician, died November 28 at Collins Hospital. Dr. White received the M.D. degree at the University of Cincinnati School of Medicine. Prior to his retirement, he had practiced in Knoxville for 33 years. He was a life member of the Iowa Medical Society.

Dr. Daniel W. Coughlan, 69, Des Moines surgeon for 40 years, died December 12 at Iowa Methodist Medical Center. Dr. Coughlan received the M.D. degree at U. of I. College of Medicine; interned at Cleveland City Hospital in Ohio; and completed his surgery residency at University of Georgia and Iowa Methodist Hospital. A veteran of World War II, Dr. Coughlan served on the medical staff at Iowa Methodist Medical Center, Mercy Hospital, and Iowa Lutheran Hospital. He was a member of Alpha Omega Alpha honorary medical fraternity; diplomate of the American Board of Surgery; and served as Medical Education and Health Care coordinator at Broadlawns Hospital from 1937 to 1976.

Dr. Charlie E. Chenoweth, 87, longtime Mason City physician, died December 4 in Iowa City. Dr. Chenoweth received the M.D. degree at U. of I. College of Medicine and was associated with the Ear, Nose and Throat Clinic at U. of I. prior to locating in Mason City where he practiced medicine for 35 years. In 1954, he moved to Anchorage, Alaska, and in 1966 received the doctor of the year award from the Alaska State Medical Society. He returned to Iowa City in 1970. Dr. Chenoweth was a past president of Cerro Gordo County Medical Society; Mercy Hospital medical staff in Mason City; Providence Hospital medical staff in Anchorage; Mason City Kiwanis Club and YMCA.

Dr. Martin J. Ryan, 75, former chief of staff at St. Vincent Hospital in Sioux City, died December 26 in Phoenix, Arizona. Dr. Ryan received the M.D. degree at Creighton University School of Medicine in Omaha and began his medical practice in Sioux City in 1932. Dr. Ryan retired in 1962 and relocated in Phoenix.

Dr. Cecil S. O'Brien, 88, founder and for 21 years head of the Department of Ophthalmology at U. of I. College of Medicine, died December 11 at La-Jolla, California. Dr. O'Brien received the M.D. degree at the Indiana University School of Medicine. He created the U. of I. ophthalmology department and residency training program for physicians wishing to specialize in eye disease in 1927. Dr. O'Brien left Iowa City in 1948 to practice in Arizona and later in California. In 1973, a new library and learning resources center in the Department of Ophthalmology at University Hospitals was named in honor of Dr. O'Brien.

Dr. William D. Paul, 77, professor emeritus of orthopedics at U. of I. College of Medicine, died December 19 at his home in Iowa City. Dr. Paul received the M.D. degree at University of Cincinnati; served his internship at Cincinnati General Hospital and his residency in internal medicine at University Hospitals in Iowa City. He became assistant professor of medicine in 1941; associate professor in 1946; and professor in 1954. He was named professor emeritus in 1968. While at the University, he was instrumental in the development of many drugs, including Bufferin and Rolaids. Dr. Paul founded the Iowa Chapter of the Arthritis and Rheumatism Foundation, and chaired its state medical committee. He was U. of I. team physician from 1939 to 1971 and was named a diplomate of the American Board of Physical Medicine in 1947. He served on the Committees on Sports Medicine of both the Iowa Medical Society and the American Medical Association.

Dr. Peter Jerome, 59, Davenport, died December 8 at Mercy Hospital in Davenport. Dr. Jerome received the M.D. degree at University of Heidelberg in Germany; interned at Younkers Hospital in New York City; and completed his residency in internal medicine at Richmond, Virginia and VA Hospital in Iowa City. He was an associate member of American College of Physicians.

CLASSIFIED ADVERTISING RATE—\$1 per line, \$10 minimum per insertion. NO CHARGE TO MEMBERS OF IOWA MEDICAL SOCIETY. Copy deadline—10th of the month preceding publication.

FOR SALE—Examining room equipment—5 rooms complete, \$500 per room. For more information, call 515/964-4217, ask for Lola Peters.

MUSCATINE, IOWA—needs an otolaryngologist, obstetriciangynecologist and family physician. We serve a population of 40,000. The new 4.5 million dollar addition will be completed in 1978. The new one million dollar clinic was opened in January, 1978. The community is 35 miles from the University of Iowa and the Quad-Cities. Eleven new physicians have joined the medical staff in the last three years. If interested please contact, David G. Kundel, M.D., Chairman. Recruitment Committee, 1501 Cedar Street, Muscatine, Iowa 52761.

FOR SALE—Miscellaneous office equipment—some near new. Contact Surgical Associates, 1407 Woodland, Des Moines, Iowa 50309. 515/288-9583.

MEDICAL DIRECTOR (F.P.)—Board certified, Board eligible, Family Practitioner and General Internist for primary care group practice in metropolitan area of 100,000. Robert Wood Johnson Foundation Grant and option for National Health Service Corps participation assist start-up. New building to be completed in 1978. Contact K. A. Rogers, M.D., or Mark S. Taylor, D.O., 4720 Gordon Drive, Sioux City, Iowa 51106. 712/274-2400.

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PSYCHIATRIC RESIDENCY—Vacancies for (PG2 through PG4 only) positions for July I, 1978 for those who have a regular Iowa license or can obtain one by reciprocity or via FLEX. Prepare for career in private practice, community clincis or hospital based psychiatry. Emphasis on close supervision of intensive individual and group psychotherapy, OPD, Children's Unit, Adolescent Unit. Neurology affiliation with University of Iowa. The stipends are: 1st year, \$22,360; 2nd year, \$23,478; 3rd year, \$24,674. Intensity and diversity of training program appreciated best by personal visit, Write T. B. McManus, M.D., Superintendent, Mental Health Institute, Cherokee, Iowa 51012. Equal opportunity employer, or call collect 712/225-2594.

FOR SALE—Beautiful brick building located in Des Moines at 4019 Ingersoll. Ideal for dental or medical office. (Now occupied by dentist who wishes to retire.) Building has lovely walnut paneled office, large reception room, 4 treatment rooms, dark room, laboratory with electric stove and refrigerator, large bath with shower—all completely carpeted. Income from 4-Plex on back of 80' x 200' lot will help pay for property. Plenty of off street parking. Owner retiring. Contact Albert W. Aronow, D.D.S., 4019 Ingersoll, Des Moines, Iowa 50312 or call 515/279-9792.

INTERNIST AND FAMILY PHYSICIAN—Established need for both an internist and family physician to join seven man group in beautiful Northwest Iowa. New clinic building of 10,000 sq. ft. is located next door to 88-bed county hospital. Unusually progressive community of 10,000 offers 3,000 acre lake, 85 acres of parks and recreation, local liberal arts college, and many family interest features. Generous salary with incentive, malpractice insurance, liberal vacation and seminar time, partnership in one year. Contact D. A. Pritchard, Administrator, Buena Vista Clinic, 620 Northwestern Drive, Storm Lake, Iowa 50588.

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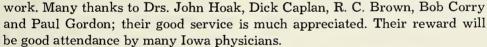
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President's Page

It is my personal pleasure and privilege to extend a cordial invitation to all members of the Iowa Medical Society to attend the 1978 Scientific Session April 4, 5 and 6 in Iowa City. This threeday program of continuing medical education is open to all member physicians and is offered cooperatively with the University of Iowa College of Medicine. We hope you will plan to attend all or part of the session.

You will find the full program printed elsewhere in this issue of the JOURNAL. Please take a few minutes to look it over. I think you will agree we have been provided an excellent "Something for Everyone" program. I am looking forward to the occasion with a great deal of anticipation.

I want to extend sincere gratitude to the 1978 Program Committee for its hard and effective



In addition to the comprehensive scientific program, there are several events which have entertainment and comradeship as their objective. These informal times to share conversations and experiences with professional friends are always a welcome part of our time together.

Please join us in Iowa City April 4, 5 and 6 for an interesting, informative and inspiring time together. We'll look forward to seeing you.

LW Jwanson M.D.

L. W. Swanson, M.D., President

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The Question Box



by JOHN C. HOAK, M.D.

1978 SCIENTIFIC SESSION

Dr. Hoak is chairman of the 1978 IMS Program Committee. This committee has developed the program described elsewhere in this issue. In the following comments Dr. Hoak indicates why he thinks Iowa physicians should come to Iowa City April 4, 5 and 6.

What brief comments do you have regarding the 1978 IMS Scientific Session?

We believe this year, the program will be of great interest to all types of physicians in the state. The emphasis has been placed upon the updating of specialized procedures so that the attending physician will not only know the indications for these procedures but what he and his patient can expect as a result of having these procedures. Such topics as joint replacements, new management of hemophilia, coronary artery bypass surgery and kidney transplants are typical of the topics to be covered. Panel discussions will include an excellent consideration of dementia, a topic which entails important differential diagnostic features so that appropriate therapy can be used. We are excited about this year's program and we believe it will represent a period of time well spent for the practitioner.

Does the program have something of interest for various specialties?

We have deliberately provided topics and sessions which will be of interest to specialists as

well as to generalists. One part of the program will be entirely devoted to simultaneous sessions involving surgery, medicine, pediatrics and obstetrics and gynecology. In addition, many of the general sessions have important information for the specialist as well as the generalist. In addition, there are matters related to medical legislation and the College of Medicine which have importance to all physicians in the state.

Do you have any special words of invitation from the Program Committee?

The committee has planned a program which has not only important scientific components, but we believe to have interesting and enjoyable social features as well. In addition to the reception provided by the University of Iowa College of Medicine and the banquet, we will have ample opportunity for other entertainment. At the banquet, we will be entertained by a delightful young group of singers from West High School in Iowa City. This group has received wide acclaim locally and promises to make your evening a most happy one. In addition, you will have the opportunity to hear a concert by the highly regarded University of Iowa Symphony Orchestra at Hancher Auditorium. This group of young musicians received enthusiastic comments from critics at the time of their participation at a concert in Boston last year. Those of us at the University of Iowa extend an especially warm welcome to all of you to join us in Iowa City for this annual event.

What are the dates, places, etc., again for the meeting?

This year's meeting will be in Iowa City on April 4, 5 and 6 at the Highlander Inn, Route 1 and I-80, east of Iowa City. Part of the program will be held at University Hospitals on April 5.

IOWA Medical Miscellany

RESOLUTIONS . . . County medical societies planning to submit resolutions to the 1978 IMS House of Delegates should be mindful of the need to forward them to Society Headquarters as early as possible. Those received in time are printed in the Delegates' handbook, others are duplicated and placed in the Delegates' Packets.

NOMINATING COMMITTEE... The 1978 IMS Nominating Committee will meet Tuesday, April 4 in Iowa City (in conjunction with the IMS Scientific Session). District caucuses to select representatives to the Nominating Committee are being held in February and March. The 1978 offices to be filled were noted in the February IMS UPDATE.

HANDBOOK DISTRIBUTION . . . The 1978 HANDBOOK for the House of Delegates will be distributed in late March. The HANDBOOK contains committee reports and other material for delegate review in advance of the May meeting.

CHIROPRACTIC RULE-MAKING . . . Efforts by the State Board of Chiropractic Examiners to revamp rules under which its licensees function have been resisted actively by the IMS. A formal complaint was submitted in December on the proposed chiropractic rules. The Society followed this with a February 14 appearance before the Legislative Rules Review Committee to offer further objection. Now under consideration is the possibility of filing notice of a request for a public hearing.

IFMC REPORT . . . The Iowa Foundation for Medical Care expects to reach the 100 mark in March in number of Iowa hospitals holding delegated status under the PSRO program. In the area of private fee review, the IFMC is discussing its services with Dubuque Pack and Firestone; John Deere and Blue Cross/Blue Shield already use the Foundation for review purposes.

SPORTS MEDICINE SESSION . . . The 1978 Conference on the Medical Aspects of Sports will occur Thursday, March 30 at the Drake University Olmsted Center in Des Moines. Open to physicians, coaches, trainers, etc., the conference is a project of the IMS Committee on Sports Medicine in collaboration with the Iowa High School Athletic Association. Kansas City Chief Team Physician A. R. Miller, D.O., will be the keynote speaker. Additional information is available from IMS Headquarters.

TAPE TO TAPE . . . Increased utilization of tapeto-tape procedures in claims administration is being pursued actively by Iowa Blue Shield. The Gilfillan Clinic in Bloomfield is the first Iowa clinic to employ the concept with Blue Shield, having begun in late 1977.

HEALTH PLANNING CONFAB... Developments in health planning will be examined Saturday, March 11, at the Hilton Inn in Des Moines at a conference co-sponsored by the IMS, Iowa Hospital Association and Iowa Health Systems Agency. An array of informed speakers will include U. S. Senator Dick Clark. The session is open to interested physicians and convenes at 9:30 a.m.

RURAL HEALTH SERVICES . . . Four public meetings were held in February by Senator Dick Clark on the topic, "An Evaluation of Federal Health Programs That Impact on Rural Areas." Covered by the IMS, the sessions were in Hinton, Carlisle, Jesup and Lisbon. The IMS filed a statement for insertion into the record of the hearings.

MEET WITH HEW OFFICIALS . . . IMS representatives met February 16 with regional HEW officials to discuss that liaison which exists between Medicaid provider groups and the State Department of Social Services. The meeting followed by one day a session of the State Medical Assistance Advisory Council.

MEDICAID COMMENT . . . The IMS has objected formally to a Medicaid requirement wherein providers are obliged to sign a participatory agreement. The State Department of Social Services contends it must have such a document on file from physicians and other providers, even though essentially the same language as is proposed for the agreement now appears on the Title XIX claim form. The Society's objection to this provision was contained in a February 6 letter from President L. W. Swanson, M.D., to the Department of Social Services.

LEGISLATURE CALM . . . As this is prepared, no major health care legislation has received floor consideration by either the House or Senate. However, a variety of health-related bills remain with various legislative committees and could emerge rapidly.

RESPOND TO HEW GUIDELINES... Proposed national guidelines for health planning (as revised and released January 20) were the subject of a February 15 IMS letter to HEW Secretary Califano. In the letter Society President L. W. Swanson, M.D., expressed concern that continued regulatory emphasis on short-range cost-containment will threaten the accessibility and quality of Iowa health care. The IMS letter criticized the vague wording of the HEW guidelines and charged their adoption still may precipitate indiscriminate hospital closures. Various other concerns were contained in the Society rebuttal.

MEMBERSHIP SERVICE... IMS installation of an incoming WATS telephone line has occurred at the direction of the Board of Trustees. This pro-

INCOMING IMS WATS LINE-1/800/422-3070

ject is intended to facilitate communication between members and IMS Headquarters. It is undertaken following House of Delegates' action calling for increased services. Member physicians may call the Society (1/800/422-3070) with informational reports and inquiries.

RHINE ADVENTURE . . . IMS members have available to them a July 22/August 1 luxury trip to Europe. The 11-day vacation will include stops in Belgium and Germany, plus a Rhine River Cruise. Cost of the trip is \$1338. Detailed information is available from Society Headquarters.

PHYSICIANS RETAINED . . . In elections covering two meetings physician representation on the 30-member Board of Directors of the Iowa Health Systems Agency was maintained at five. Reelected to three-year terms were L. O. Ely, M.D., Des Moines (at large), Roger Rademacher, D.O., Charles City (at large), R. S. Gerard, Waterloo, M.D. (subarea), J. E. Tyrrell, M.D., Manchester (subarea). The term of P. M. Seebohm, M.D., Iowa City, was not up for reelection.

CONTINUING EDUCATION COURSES & CONFERENCES

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

March 13-16	Cardiology Today	April 7-8	Great Plains Medical Student Oncology Con- ference
March 15	Diet Therapy U.S.A.	April 27	Radiation Therapy Seminar
March 23	Radiation Therapy Seminar	May 8-11	Cardialogy Today
March 29-30	Conference on Perinatal Medicine, Des Moines	May 11-13	Iowa Eye Assaciatian
April 3-7	Intensive Course in Pediatric Nutritian	May 15-16	Medical and Surgical Diseases in Pregnancy
April 4-6	lowa Medical Society Scientific Meeting	June 2	Otolaryngalagy Clinical Canference
April 5	Ophthalmology Clinical Conference	June 4-9	Intensive Caurse in Pediatric Nutrition
April 7	Otolaryngology Clinical Conference	June 14-16	Saciety af Epidemiologic Research

IN THE PUBLIC INTEREST / WHAT DOES IMS DO?

WHAT DOES the Iowa Medical Society do? This question is asked periodically by interested persons. It's asked occasionally even by member physicians, sometimes facetiously, sometimes seriously. This might be a good time, because it is a particularly busy time, to offer a brief response to this inquiry.

First, for those readers who aren't just exactly sure what the Iowa Medical Society is, let alone what it does, a brief statement may be in order. The Iowa Medical Society is a voluntary, nonprofit organization of physicians. It has diversified objectives which include (as stated in the Society's Articles of Incorporation) . . . to promote, extend, elevate and advance medical science and medical knowledge . . . to advocate such measures as will tend to alleviate the sufferings, improve the health, and protect the lives of human beings . . . to promote the science and art of medicine and the betterment of public health . . . to elevate the standards of medical education . . . to assist worthy and deserving medical students . . . to enact and enforce just medical laws . . . to establish, maintain and enforce as an incidence to membership, high standards of professional conduct and ethics to the end that the profession shall become more capable and honorable within itself and more useful to the public, thereby prolonging and adding comfort to life.

So, as the question was posed at the outset, what does the Iowa Medical Society do in pursuit of these lofty goals? Well, here are a few specific examples of what's going on in the weeks just ahead:

CONFERENCE ON HEALTH PLANNING—On March 11 the Society will share with the Iowa Hospital Association and the Iowa Health Systems Agency in presenting a meeting for physicians, hospital administrators and hospital trustees to review important aspects of health planning. This subject is called the single most crucial issue facing the future of health care. Experts will report

to the conference participants on the status and prospects for health planning from both national and state perspectives. The session is to be at the Des Moines Hilton Inn.

CONFERENCE ON MEDICAL ASPECTS OF SPORTS—On March 30 the Society will join with the Iowa High School Athletic Association in offering an educational session for high school coaches, trainers, physical education teachers, team physicians, etc. Keynote speaker for the conference will be Albert R. Miller, D.O., who has been team physician for the Kansas City Chiefs for 15 years. This session will be in the Olmsted Center at Drake University in Des Moines.

IMS SCIENTIFIC SESSION—On April 4, 5 and 6 the Society's 1978 Scientific Session will be offered in Iowa City. Over 50 scientific presentations are included in this impressive program of continuing medical education. The obvious purpose is to provide Iowa physicians current and new information on topics covering various specialty areas, including family medicine, pediatrics, surgery, internal medicine, ophthalmology, orthopedics, obstetrics and gynecology, psychiatry, etc. This is the Society's major continuing education event of the year and will be held at both The Highlander Inn and University Hospitals in Iowa City.

IMS HOUSE OF DELEGATES—On May 6 and 7 approximately 200 Iowa physicians will be in Des Moines for the annual meeting of the Iowa Medical Society House of Delegates. This is the legislative arm of the state's medical profession. Delegates elected by county medical societies have the opportunity to hear and act on reports and resolutions, to elect officers, and to establish policy through which the Iowa medical profession will respond to health care issues.

These events afford some indication as to what the Iowa Medical Society does. The total program seeks to be consistent with the title of this regular JOURNAL feature—In the Public Interest.



A Program for the Impaired Physician

HORMOZ RASSEKH, M.D. Council Bluffs, Iowa

Described here is a voluntary program where a potentially troubled physician is able to contact a colleague advocate for confidential evaluation and assistance, if needed. The idea is acknowledged to be conceptual and comment is invited.

ONE DIFFICULT PROBLEM facing medicine today is how it will serve those within its ranks who have been beset by some mental impairment or disability. We have seen this subject of the impaired physician discussed prominently in the news media in recent months and years And while these public reports may have validity and justification, they often present a distorted picture of the troubled physician and do a disservice in terms of rehabilitative potential.

Attention is being given to this topic by components of the medical profession all across the country. It is appropriate therefore for Iowa physicians to examine their present activity and

Dr. Rassekh is in the private practice of psychiatry in Council Bluffs, Iowa. He is a member of the Iowa Medical Society Board of Trustees and the Committee on Psychiatric Care. decide what might be done additionally within our boundaries.

SCOPE OF THE PROBLEM

The magnitude of this problem is difficult to describe precisely. There is an understandable absence of complete and accurate statistics. It is believed that nearly 75 per cent of all Americans use alcohol and about 10 per cent of these individuals may be alcoholics. Application of these percentages to the Iowa medical profession means that some 250 to 300 physicians may be alcoholics or have some chemical dependence.

Other factors can be cited to support an even higher incidence of drug addiction (including alcohol) and mental illness within the professional community. Surveys tend to substantiate that the incidence of these diseases is greater (1) for the male, (2) for the more highly educated, (3) when drug availability is easier, (4) where extra pressure and daily stress are involved, and (5) when careful supervision is the least. Where these factors are coupled with the so-called "conspiracy of silence," which is sometimes alleged within the medical profession, the susceptibility of physicians is no doubt greater. Another barometer to measure the seriousness and scope of the problem is the annual high suicide rate among physicians nationwide.

Illnesses in this area are not readily defined and, consequently, are often either consciously or

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF MARCH 1978.

subconsciously ignored. This makes early detection an elusive matter. In advanced cases therapeutic modalities are frequently unsuccessful and often result in recidivism. When an impairment progresses unchecked, even when the problem is known, there is frequent difficulty in instituting therapy, and rehabilitation in any total sense is jeopardized.

POSSIBLE SOLUTIONS

The government and the general public both tend to believe the medical profession should police itself, that "doctors should take care of doctors." They make this assertion without realizing that doctors have no legal authority to police their colleagues. At an earlier time when membership in the medical society was a requisite to receiving hospital staff privileges, some peer group pressure, as reflected in society membership, was present and partially effective. Under present circumstances the embattled doctor may simply resign from the medical society and this is his escape from that kind of pressure.

Thus the real task of discipline falls to the State Board of Medical Examiners. The Board is empowered to discipline and has authority to revoke or suspend a physician's license to practice medicine. Organized medicine has always favored a strong Board of Medical Examiners. By strong we do not mean one that is without compassion or a desire to rehabilitate. The Iowa Medical Society has been an advocate and supporter of legislation to increase and make effective the powers of the State Board of Medical Examiners. We continue also to back legislation to provide adequate funds for the Board to use in fulfilling its investigative and disciplinary duties.

It is noteworthy however that the legislation enacted recently to expand the authority of the BME has at least one provision which is the basis for some concern and presents a need for careful consideration. This has to do with the required reporting of a potentially errant physician to the BME by any of his colleagues. The law provides immunity from liability to the physician who makes this report when it is done "without malice." However, the word "malice" is not defined in the law, and even if clearly explained with immunity fully established, some scholars of the law do not believe state immunity would protect a reporting physician from federal litigation.

There are other perhaps unavoidable shortcomings in the new law which expands the role of the Board of Medical Examiners. For instance, if a probationary arrangement is devised by the BME in a somewhat usual case of an impaired physician, this means of addressing an illness becomes more judicial than therapeutic. The end result, with the involvement of a statutory agency, may compound the devastation and bring about partial or complete destruction of the physician's practice, and a subsequent loss of service to the community. This judicial process and remedy may be necessary but in some instances the negative impact will thwart any chance of successful treatment and/or rehabilitation. The legal ramifications may impose psychological burdens beyond the ability of the afflicted person to cope.

This fear of suspension and public ridicule makes doctors—most of whom generally enjoy an esteemed position in the community—more reluctant to accept the fact that they could be ill. Out of a fear of shame and an unwillingness to face a grave problem, they fight doggedly to suppress the matter. They wish not to lose the esteem and gain the visibility which accrues when a respected individual is discovered to be sick in this fashion.

In making the preceding comments it should be stated also that physicians whose chemical dependency and/or mental illness jeopardize their ability to deliver service to the community should not be accorded any greater immunity than is available to the average citizen. The medical profession supports harsher punishment and more discipline for those in its ranks who are unwilling to accept help, including the permanent restriction of licensure.

AN ALTERNATE APPROACH

While the remedial action of the Board of Medical Examiners is supported where it is needed, there should also be a concerted effort on the part of the profession to find the sick physician and get him into a therapeutic plan before a crisis is at hand. This is the purpose of this discussion, to suggest an additional or alternate approach. It is believed this alternate approach should be formed by organized medicine and have no governmental affiliation. We need to expand on the limited voluntary activity which has been pursued in recent years. In this regard, the Iowa Medical Society has informed its membership and that of the Auxiliary—as well as the Board of Medical Examiners—of the availability of its

psychiatric and alcoholism committees to help if called upon in individual situations.

There have been very few referrals to this informal program. Why? Fear of records being kept, the possibility of identities being revealed, distance, no familiarity with the program, etc. What is needed in lieu of this current effort is a thrust which promotes stronger cooperation and self discipline within the medical profession. Needed is some humanitarian mechanism which encourages early detection of the impaired physician and promotes a discrete treatment and rehabilitation program, giving in the process full understanding to the physician's family, and offering optimistic predictions for effective re-entry into practice.

The approach contemplated would be one of impressing on the impaired physician that his condition is treatable, that he is wise to seek help, and that his cooperation as early as possible is necessary to preserve both his pride and his practice. Input from both the profession and lay persons will aid in defining and refining the program in terms of greater effectiveness.

PROGRAM BLUEPRINT

The program blueprint, which is merely conceptual at this stage, would be developed along these lines:

- 1) The Iowa Medical Society would select a group of respected member physicians (possibly eight) from across the state to serve voluntarily as a board of consultants or advocates to be available to help. Their identity would not be revealed.
- 2) Except in unusual circumstances these physician advocates would receive no pay and no charge would be made to the ill physician. In this consideration of finances, it might be possible to assist the troubled physician, who also is in financial straits, through a special fund of the Scanlon Medical Foundation/Iowa Medical Society.
- 3) Every physician (and his family) and every hospital administrator would be thoroughly informed about the existence of this board and its method of operation. However, as mentioned, the names of the individual advocates would be held confidential.
- 4) When the doctor (or member of his family) becomes aware of a developing illness in this area, one likely to cause future impairment, a contact would be made with a private "clearing-house" telephone number. The call would be re-

FLOW CHART

REFERRAL SOURCES
Concerned Physician
Another Physician
Family
Hospital Staff
Etc.

ANSWERING SERVICE No Name Need Be Given Only Telephone Where Person Can Be Reached

ADVOCATE ON CALL

May Refer To More

Appropriate Advocate

ferred to an available member of the Board of Advocates to initiate a contact.

- 5) If the doctor identified as having a real or potential problem is willing, consultation and therapy would be started on a confidential basis with no knowledge of the physician's community, peer group, nurses, hospital or social organizations. No record would be kept for present or future consideration.
 - 6) The therapy regime would be carried out

REQUIREMENTS FOR PROJECT IMPLEMENTATION

By the Iowa Medical Society:

- 1. Payment for Answering Service.
- 2. Telephone credit card for use by Advocate.
- 3. Payment of mileage for personal interview and site visit by Advocate. THERE IS TO BE NO MENTION OF LOCATION OR NAME
- 4. Provision of a list of available therapeutic resources in lowa and elsewhere for possible use by the Advocate.
- 5. Possible financial assistance to the concerned physician through the Scanlon Medical Foundation/Iowa Medical Society.

By the Advocate:

- I. Agree to meet as a group to discuss and develop the operational aspects of the program.
 - 2. Contact concerned callers as soon as possible.
- 3. Meet if invited with troubled physician or other appropriate person.
 - 4. Assist in devising a program of therapy.
 - 5. Be aware of available therapeutic resources.
 - 6. Participate in periodic review and evaluation of the program.

while the physician continues his practice if at all possible. Indeed, if necessary, arrangements would be made to provide short-term hospitalization for detoxification and introduction of a proper therapeutic program. This would be at the request of the patient's attending physician.

- 7) If the impaired physician refuses help after assistance has been offered, the job of the Advocate is completed. However, the door is left open to further contact should the physician wish to call the Advocate.
- 8) No reporting of the work of any Advocate is made to any organization, including the Board of Medical Examiners or the Board of Trustees of the Iowa Medical Society.

In proposing this plan there is an awareness

that other states (New York, Washington, Ohio, Michigan, Georgia, etc.) have programs operative. This proposal is somewhat unique in that it eliminates record keeping and affords the troubled physician the recommendations of a concerned advocate. Thus, it is more practical and should work better.

The potentially troubled physician is the true beneficiary of such a voluntary program which advocates early consideration of any problem. The plan needs further development and refinement before any implementation could be considered. It is submitted in this preliminary manner with an invitation to member physicians to submit their thoughts and suggestions regarding the program and their predictions as to its potential.

WE'VE COME A LONG WAY, BABY!!

Now on display at the Library of Medicine at the University of Nebraska Medical Center is the collection of 41 precursors of the baby bottle owned by Marion E. Alberts, M.D., Des Moines. Dr. Alberts is scientific editor of the IMS JOURNAL.

The collection, which includes infant feeding utensils pre-dating Christ, has in it pots and flasks and cans. For example, among the items pictured here are a clay feeding pot from northern Iran by the Caspian Sea (100 to 200 B.C.); a glass feeder obtained from digs in Germany, probably from Nidda—a fifth century Roman settlement; a tin nursing can from Pennsylvania used in the 1700's; a hand-blown American glass nursing flask dating to about 1850; a "bubby pot" made about 1800 of Leeds cream ware from England, and an earthen

ware pap boat made in England about 1800. Pap was a warm mixture of bread or cake crumbs



combined with ale, wine, beer or milk. It was given to infants as their first solid food.

Dr. Alberts is in the private practice of pediatrics and is a University of Nebraska medical graduate.

The Need for EMS Legislation

JOAN LIPSKY Cedar Rapids, Iowa

A veteran state legislator laments the failure of the General Assembly to pass much needed legislation to cover emergency medical services. She urges active support by health care providers of legislative measures now before the state's lawmakers.

Most Iowans who provide emergency medical services believe they are protected from liability by the "good samaritan" law. In most instances this is a myth, not a fact.

The good samaritan law is contained in Chapter 613.17 of the Iowa Code. It exempts from liability persons who administer emergency medical services without compensation. Since most ambulance personnel are paid employees and function as part of an EMS team in the line of compensated duty, the Iowa Code offers them no exemption from liability.

Most Iowans who provide emergency medical services believe if they are acting under a doctor's orders they are protected from criminal liability by an agency relationship with the physician. This is also a myth.

Under Iowa law only physicians, nurses or physician's assistants are licensed to perform most definitive care functions. Elsewhere in this issue, Albert E. Cram, M.D., and Mr. Joe Tye describe the EMS program developing in Iowa. It is evident that much pre-hospital care violates the

medical and nurse practice acts insofar as advanced life support services are provided by trained but unlicensed personnel. Some of the procedures now being used which are in violation of the practice acts include endotracheal airway management, intravenous therapy, cardiac defibrillation and administration of certain drugs. Although these procedures are performed at the direction of a licensed physician in direct communication with EMS personnel, these persons are acting in violation of the existing practice acts. Both the directing physician and the person administering pre-hospital care are subject to both criminal and civil liability.

Obviously there is an acute need for legislation to grant legal authority for advanced pre-hospital care programs and specific exemption from liability to those who deliver these emergency medical services.

For the past 10 years legislation has been introduced in the Iowa General Assembly to provide state regulation of emergency medical services through establishment of standards for vehicles and for personnel administering these services. As a sponsor of these bills, I have been dismayed and disappointed at the lack of support for this important legislation. However, I continue to believe Iowa needs laws guaranteeing quality lifesaving services whenever emergencies occur. When Iowans are helped to recognize this need, they will support this legislation.

CONTINUE DEVELOPMENT

While Iowa has continued to develop emergency medical services which utilize new lifesaving procedures for pre-hospital care, there has

Mrs. Lipsky is a member of the House of Representatives in the Iowa General Assembly. This article is based on a presentation made at a recent symposium sponsored by the Iowa Heart Association.

been no action to pass needed legislation to provide a legal program. As indicated previously, numerous bills have been introduced, some have received legislative committee sponsorship but none have received sufficient support to merit debate. There are a number of reasons for the failure of the legislature to address the problem. The greatest obstacles are fear and apprehension on the part of volunteer units engaged in emergency medical service. These volunteers who perform without compensation mistakenly believe that a move to impose standards and to certify personnel will limit their own ability to perform as EMS units. They must be convinced that while the existing law does protect them, others are entitled to similar protection.

PUBLIC APATHY

The indifference and ignorance of the general public regarding EMS affords no stimulus for the legislature to act. Most people think any vehicle marked as an ambulance and equipped with a siren can perform adequately as an emergency medical vehicle. Similarly, many persons believe any building called a hospital has the capability to provide adequate emergency services. The public must have clarification on these points and must be told the tools necessary to save lives are being threatened unless the legislature acts.

Finally, the medical profession has not perceived its own important degree of involvement, except for those doctors who are directly involved with emergency care. Physicians, hospitals and nurses may be subject to both civil and criminal liability for that participation in prehospital care which violates the Iowa practice acts. Those licensed practitioners who would save lives must recognize their responsibility to encourage and support needed legislation to increase the chances of the patient reaching the hospital alive and being able to respond to treatment.

EDUCATIONAL EFFORT

A large job of education remains to be done by those who have a genuine interest in providing emergency medical services and in amending the Iowa law to reflect modern medical practice. Those now engaged in providing EMS programs must be convinced they will not be prevented from continuing to provide service in their communities because we have certified paramedics. The general public must be educated to understand that without EMS legislation lives will be lost because of failure to institute life-saving procedures at the earliest opportunity. Doctors, nurses and hospital administrators must recognize their support and understanding of the need for EMS legislation is essential if passage of appropriate legislation is to occur.

ONE OF FEW

Iowa is one of only 10 states to have taken no action to implement an EMS program by appropriate legislation. Legislation in other states varies from comprehensive EMS statutes which license personnel and prescribe training, define procedures and establish programs in great detail to other statutes which merely provide certification for paramedics.

The Governor's Advisory Committee on Emergency Medical Services has been working to develop legislation which will answer needs in Iowa. Senators Calvin Hultman and Lowell Junkins, as well as this representative, are in communication with the EMS advisory committee on bills introduced in the 1978 legislative session. In addition, I have introduced a simple bill modeled after a State of Washington statute to provide certification of advanced life support techniques administered by non-medical trained personnel under the physician practice act.

PREVIOUS LEGISLATION

EMS legislation has been introduced in the Iowa General Assembly in the last five sessions. Unfortunately, a lack of active support and interest on the part of hospitals, physicians, nurses and the general public, coupled with opposition from many volunteer organizations that believe they are protected by the good samaritan statute, has prevented passage of the earlier legislation. Hopefully, this year physicians and hospitals will recognize the urgent need for appropriate legislation and the intimate relation it bears to their own responsibility and ability to provide high quality care for trauma victims, cardiac patients and others who need emergency care. Only with the active support of the medical profession will Iowa law be enacted to provide for an adequate EMS program.

Emergency Medical Services in Iowa

A. E. CRAM, M.D., and J. B. TYE, M.A. Iowa City

lowa's progress in the upgrading of its emergency medical services is summarized. Quality pre-hospital care of emergency cases is cited as a public responsibility equivalent to fire and police services. Iowa physicians are challenged to pay an active role in planning and developing emergency medical services.

IN RECENT YEARS interest in emergency medical services (EMS) has flourished across the country. This is one area where mortality can be reduced by improving the delivery system, and without the need for a breakthrough in the basic sciences.

It has been demonstrated nationally in the development of EMS systems that physician involvement in planning and implementation is crucial if success is to be achieved. This article has been prepared to update physicians on recent Iowa EMS developments, and, hopefully, to stimulate their involvement in future planning and implementation.

EMS PLANNING

The magnitude of traumatic death and disability was documented in a study published in 1966. It led to passage of the Highway Safety Act of 1966 which established standards and provided funds for ambulances and for the training of ambulance technicians. In 1973, the "Emergency

Dr. Cram is associated with the University of Iowa Department of Surgery and is director of emergency medical services at University Hospitals. He is also a member of the Governor's EMS Advisory Council. Mr. Tye is first vice-president of the Southeast Iowa EMS Council and is an administrative associate in the U. of I. Department of Nursing.

Medical Services Systems Act" (P.L. 93-154) was enacted. This divided EMS systems into 15 components (See Table I), and created funding mechanisms to implement these elements.

The most important result of this legislation has been to increase awareness of the need for a "systems approach" to the delivery of emergency medical care. To optimize the quality of care, each component must be developed to complement and support the other.

Iowa EMS planning began formally with inception of the Governor's Advisory Council in 1971. This 15-member Council has attempted to coordinate development of EMS capabilities in Iowa. Planning activity has involved emergency communications and transportation, manpower and training, the categorization of hospital emergency capabilities, and the investigation of legislative requirements for EMS system implementation. The EMS section of the State Department of Health has provided staff support to the Governor's Council. The Comprehensive Emergency Medical Services Plan for Iowa² was published in 1975.

The importance of local input has been emphasized in the statewide planning effort. Five EMS regions have been identified to conform with the subareas of the Iowa Health Systems Agency. Four of these regions have received planning funds from Section 1202 of the "Emergency Medical Services Systems Act." The Sioux Lakes region, in northwest Iowa, has completed a regional EMS plan, and has received funds for its implementation under Section 1203 of the EMS Act. In each region the planning and implementation is supervised by an EMS council composed of health care providers and consumers. Each council has employed professional staff to gather data, write plans and coordinate system implementation.

The regional EMS councils are to develop priorities for their specific areas with inter-regional coordination provided by the EMS section of the

TABLE I

15 COMPONENTS IDENTIFIED IN FEDERAL PLANNING GUIDELINES AS ESSENTIAL TO AN EMS SYSTEM

- 1. Adequate number of trained health professionals.
- 2. Appropriate training and continuing education programs.
- 3. Central communications system.
- 4. Emergency transportation services.
- Adequate number of emergency medical facilities with categorized capabilities.
- 6. Access to specialized critical care units.
- 7. Effective utilization of public safety agencies.
- 8. Consumer participation in EMS policy making.
- Provide necessary emergency medical care regardless of victim's ability to pay.
- Provide for transfer of emergency victims to appropriate medical facilities.
- 11. Standardized patient record keeping.
- Public information and education concerning access to the EMS system and basic first aid.
- 13. Periodic review and evaluation of the EMS system.
- 14. Disaster plans.
- 15. Mutual aid agreements.

Source: "Emergency Medical Services Systems Act of 1973" Public Law 93-154, Section 1206.

State Department of Health. The allocation of funds will be determined through a prioritization process.

While systems planning is conducted at the regional and state levels, some local activity is also possible. This may include the installation of a 9-1-1 universal emergency telephone number or public education courses in cardiopulmonary resuscitation (CPR).

PROGRESS TO DATE

Iowa emergency medical services are much improved over the level of 10 years ago. There are 390 public and private ambulance services in Iowa. It is estimated that approximately 80 per cent of the ambulance vehicles in Iowa are equipped with two-way radios to allow communication with hospitals. Approximately 5,000 Emergency Medical Technicians-Ambulance (EMT-A) have been certified, and it is estimated more than half of all active ambulance attendants have EMT-A designation. Advanced Emergency Medical Technician programs are in operation in Ames and Dubuque and training is in progress in Burlington, Cedar Rapids and Iowa City. Other communities have developed limited pre-hospital cardiac life support capabilities.

The Governor's EMS Advisory Council con-

tracted with Spectra Associates in 1973 to develop an EMS communications plan.³ This effort, coupled with local planning, has caused implementation of communications systems in an eight-county region surrounding Des Moines-Ames and a sevencounty region surrounding Iowa City-Cedar Rapids. These systems allow direct communications between hospitals, ambulances and safety services and provide for limited central coordination by the communications base station.

Hospital emergency services have received less attention than pre-hospital care. Even so, improvements have been made here. In 1974, the State EMS Council asked Iowa hospitals to categorize their emergency capabilities. The Council analyzed this self-evaluation data and designated one Comprehensive Emergency Service (University of Iowa Hospitals and Clinics), 12 Type "A" Regional Emergency Services, and 16 Type "B" Regional Emergency Services. One hundred eleven other hospitals were rated as either Community Emergency Service or Immediate Aid Outpatient Service. The analysis was based primarily on equipment and staff available in the emergency service, and the availability of support services. The classification process used may have underestimated the critical care capacities of some hospitals and may have overestimated the capabilities of others. Further EMS funds will be contingent upon a vertical categorization for seven critical care areas (trauma, burns, cardiac, neonatal, poisoning, spinal cord, and psychiatric), and will allow for a more realistic appraisal of future efforts to upgrade hospital capabilities. Vertical categorization will be of notable advantage to smaller hospitals.

CITIZEN INVOLVEMENT

The participation of the citizen in emergency medical services delivery is vital. Under ideal conditions when the lay person confronts a medical emergency, he will have access to the EMS system and will be able to initiate basic resuscitation and stabilization techniques. At least five Iowa communities have installed 9-1-1 universal emergency telephone numbers. In addition to improving public access to the EMS system, significant efforts have been made to train lay persons in emergency first aid. More than 20,000 Iowans have been certified in basic life support, including CPR, by the Iowa Heart Association. Other training has been conducted by the American Red Cross.

IOWA PRIORITIES

Specific EMS priorities will be developed this year by regional councils in cooperation with the EMS section of the State Department of Health. The following subjects must be addressed:

1. Training. A mechanism must be developed to assure all ambulance personnel meet a minimum standard for EMT-A certification. Further, advanced ambulance paramedic training must be organized with the goal of providing statewide coverage and assuring appropriate physician control over quality. Standards in this area are now being developed by the Governor's Council.

The training of hospital personnel in basic and advanced emergency medical care represents a challenge for the coming years. Formal training in emergency care has been largely neglected by schools of medicine and nursing. All physicians and nurses should be proficient in basic first aid and CPR. Additionally, physicians and nurses who work routinely in an emergency service, or are on call, should be proficient in airway management, IV fluid therapy and cardiac resuscitation.

- 2. Communications. EMS communications present various complex issues, including:
- a) The use of very-high-frequency (VHF) or ultra-high-frequency (UHF) equipment. The Iowa State Communications Plan presently calls for a VHF system. However, some communities are implementing UHF systems to provide biotelemetry. Unless a statewide strategy is developed soon, there is danger a fragmented communications system will evolve.
- b) Directly related to the question of UHF versus VHF is that of medical supervision. There has been increasing pressure to provide radio medical supervision over ambulance services, and this becomes crucial when ambulance personnel begin to provide definitive medical care at the scene of an emergency.
- c) A major question to be addressed is the selection of the appropriate focal point for medical supervision, ambulance dispatch and disaster coordination. Systems may be decentralized, with ambulance dispatch at the county level and medical supervision provided by local physicians with portable radios. Alternatively, systems may operate on a more centralized basis, with ambulance dispatch being coordinated by regional base stations and medical supervision coming from physicians at regional resource hospitals. A combina-

tion of local ambulance dispatch with medical supervision provided on a 24-hour basis by regional resource hospitals may possibly be the most flexible alternative in Iowa.

3. State Commitment to EMS. Federal grant money has funded most Iowa EMS development to date. These funds are clearly intended as seed money. The state and its localities must accept responsibility for ongoing operations and further development.

The EMS system will require enabling legislation for ambulance paramedics and financial support for the development of statewide communications systems and training programs. Governmental subdivisions, such as counties, must be able to subsidize quality ambulance services if necessary.

CONCLUSIONS

Three factors must be placed in perspective in the EMS planning effort. First, it should be recognized the provision of quality pre-hospital care is a public responsibility, similar in nature to police and fire services. Secondly, it should be accepted that EMS is part of the larger medical care delivery system, and it is in this context that the quality of all emergency medical care must be evaluated. Thirdly, and most important, physicians must play an active role in EMS planning, implementation and supervision. The quality of the EMS system which emerges will depend directly on the level of physician involvement.

The success of the five regional EMS councils will depend on physician involvement. The councils will have a major role in shaping the future of emergency medical services delivery in Iowa. The five subareas of the Iowa Health Systems Agency will also have substantial impact on the EMS picture, and these should have adequate physician input. At the local level, interested physicians should become active in providing further training and medical supervision to ambulance services, and in providing public education in such areas as CPR training. Only through the active involvement of physicians will a comprehensive emergency medical services system be developed in Iowa.

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Educationally Speaking



by R. M. CAPLAN, M.D.

CHINESE FORTUNE COOKIES

One form of printed material invariably commands my attention. I have never, and probably never will open a Chinese fortune cookie and throw away the slip of paper without reading its message. I suspect those slips of paper hold you also in their awesome grip.

And isn't that silly, when you know the message will be such a tiresome platitude, or else such an empty prediction as, "You will soon have a happy experience." The aphorisms of wisdom sometimes create an illusion of profundity, the feeling that a bit of eternal truth may have fallen your way. That's a temptation too inviting to ignore. No wonder we read them so dutifully.

The latest cookie I opened told me that "He who is afraid of asking is ashamed of learning." Now there, I said to myself in a flash of recognition, is a truth that I must share with my readers. And so I am. But what comment can I make about it? It seemed I first needed to understand what it meant, and then to decide whether or not I agreed. With further thought I concluded

Dr. Caplan is Associate Dean for Continuing Medical Education at The University of Iowa College of Medicine.

that I didn't know what it really meant. Flashes of mystical insight and the penetrating clarity of dream wisdom are likewise notorious for growing quickly opaque when exposed to the clear light of day. What a pity. Perhaps.

To be "ashamed of learning" may indeed be a possibility. It is exhibited, if nowhere else, by adolescents, whose strong need to seem like their peers, neither behind nor ahead, sometimes makes them try to avoid behavior that could lead to their being called such unpleasant names as "smarty-pants," "quiz kid," "Mr. Brain," or "showoff." There may be a few physicians, but very few, who have become fixed at that level of emotional response to learning.

A greater negative factor with adults, I surmise (and that includes physicians, of course), is the recognition that learning means change. And for some, any kind of change means a rocking of the boat. That rocking turns on the internal gyroscope that all of us use to resist the waves of change.

So whether or not it has anything to do with being ashamed of learning, as the fortune cookie suggests, the fact remains that in my opinion far too many physicians fall short of asking enough questions—of patients, peers, detail men, or medical scientists.

INFO ON RADIUM MATTER

According to information supplied by the Iowa Department of Environmental Quality, the federal Environmental Protection Agency (EPA) has advised the EPA Radium Disposal Project will be concluded this year.

As a consequence, members of the Iowa medical profession who may have medical radium needles which require disposal should contact Katherine Royal, Iowa State Department of Environmental Quality, Henry A. Wallace Building, 900 East Grand Avenue, Des Moines, Iowa 50319. The telephone is 515/281-8915.



Editorials

M. E. ALBERTS, M.D., Scientific Editor

SPRING BREAK

This has been a long tedious winter in Iowa. Cold winds, deep snow, dull skies, and the long hours ministering to the sick can be most depressing unless there is an occasional break in the routine. It is time for a break, and the opportunity is available to Iowa physicians in the 1978 Scientific Session of the Iowa Medical Society during the first week of April.

RESTAURANT INSPECTIONS

THE DES MOINES REGISTER publishes weekly cleanliness ratings for restaurants and other establishments that serve food in and around Des Moines. These ratings are reported by the Iowa Department of Agriculture, using a new inspection form suggested by the U.S. Food and Drug Administration. Forty-six categories are checked, and the maximum score is 100. The scores are not necessarily a measure of health danger. Inspectors may consider the operation of a self-closing door to a restroom, the proximity of toxic substances to stored food, whether waitresses smoke at their stations, the adequacy of the refrigeration, etc. All in all, though some of the inspection seems to cover nebulous areas, the practice alerts restaurant proprietors of potential health hazards. The publication of inspection reports, furthermore, is in the public interest.

On January 24 THE ROCKY MOUNTAIN NEWS published a list of 95 food outlets in the Denver area given low marks in a similar inspection. One of the most famed and expensive dining rooms in Denver initially received a low mark of 50 and a notice to correct the deficiencies or face penalties including a possible order to shut down. Subsequently, the refrigeration units and steam tables were attended to so a score of 81 was attained prior to the deadline date. Several hotel dining rooms received low marks, as did the University

This issue of the JOURNAL provides the program for the session to be held in Iowa City on April 4, 5 and 6. There is something for everyone. The program is varied and exciting. The speakers are anxious to impart their knowledge to the practicing physicians, and to hear comments "from the field."

Study the program. Check off the areas of interest to you. Send in your reservation. Attend the 1978 Scientific Session.—M.E.A.

of Colorado Medical School cafeteria, as well as two kitchens in one of Denver's major hospitals.

In Colorado the health departments were reported making no effort to publicize the inspection information. In response to the newspaper report, the restauranteurs reacted in outrage. On February 4 THE DES MOINES REGISTER reported the City Attorney of Denver had sealed the records of the inspectors because publication of this information is not in "the public interest." Pressure apparently caused public records to be withheld to protect a chosen few, while the consumer lost his opportunity to become aware of potential health hazards in Denver restaurants. The original report indicated better sanitation marks among the fast-food chain establishments, presumably because of their proven quality-control standards as well as their limited menus.

Iowa physicians should take a strong interest in food-service sanitation and should encourage the inspection of food establishments. The reports of restaurant inspections should be reported to the public. Interest by physicians would serve to encourage proprietors of food establishments to fulfill their public trust to provide good clean food to the dining-out public in a pleasant setting. The proprietors may regard inspections as a governmental invasion of their domain. Be that as it may, there is merit to the overall program. Dining out is big business. There should be an assurance of quality as well as pleasure.—M.E.A.

QUALITY OF MEDICAL CARE

The University of Chicago Center for Health Administration recently revealed that 88% of the American people are satisfied with their health care, and that no one population group has great trouble getting to see a physician. A poll of a populous Chicago suburban area by a Health Systems Agency showed 93% of the respondents were "very satisfied" or "satisfied" with their care. Access-to-care figures have improved and low-income people are visiting physicians more than high-income people.

A paradox emerged from the polls because, despite the satisfaction expressed, 61% of the people said a health care "crisis" is present. Many years of political campaigning against the existing health care system has created the perception of a crisis that does not coincide with personal experiences.

Despite satisfaction, many people are still discontent because they have to spend so much money for health services, or they have to wait so long for services. Furthermore, there is considerable criticism about the lack of information patients receive from their physicians. People want more information and desire more self-help training. The most desired consumer health education area is first-aid training. Several years ago the medical self-help training programs of civil defense agencies were popular. Now these programs have fallen by the wayside; perhaps too much emphasis was placed on radiation and bomb shelters.

Cardiopulmonary resuscitation training programs have gained impetus. A recent study in Seattle shockingly demonstrated CPR trainees were more efficient than physicians in providing primary resuscitation in settings where all of the tools of the profession were unavailable. Such programs should be encouraged and developed on a more extensive scale.

One may agree that people will never be satisfied. That is not entirely true. We can provide good medical service and enhance that by encouraging further public education to allow people to help themselves and others in an efficient manner when the need arises. By so doing, the medical profession may gain valuable assistance. We can then follow through in the ultimate care of our patients.—M.E.A.

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State Department of Health

ON TOBACCO SMOKE AND THE NON-SMOKER

"Smokers and non-smokers cannot be equally free in the same railway carriage."

George Bernard Shaw

Scientific publications and media coverage in the last five years have focused attention on possible health risks to non-smokers who passively inhale tobacco smoke which can be a significant source of indoor air pollution, particularly if ventilation is substandard. Analytic studies have demonstrated that "sidestream smoke" from the burning cone of tobacco produces larger quantities of gases and particulate matter than "mainstream smoke" which emerges from the cigarette during puffing.

Occasionally, under conditions of heavy smoking and poor ventilation, the maximum limit of carbon monoxide (50 ppm) may be exceeded for an eight hour work exposure. The upper limit for CO in ambient air (9 ppm) may be exceeded even in cases where ventilation is adequate. Carbon monoxide, at high levels has been shown to produce slight deterioration in some tests of psychomotor performance, especially attentiveness and cognitive function.

The effects of cigarette smoke on healthy nonsmokers consists mainly of minor eye and throat irritation. However, people with certain heart and lung diseases, e.g., anging pectoris and chronic obstructive pulmonary disease, may suffer exacerbations of their symptoms as a result of exposure to tobacco smoke-filled environments. These effects would be influenced by the degree of individual exposure to cigarette smoke which is determined by proximity to the source of smoke, type and amount of tobacco product smoked, conditions of room size, ventilation as well as time exposed and the person's physiologic condition at the time of exposure.

In other areas no data are available to demonstrate any physiologic response or unhealthy effects from nicotine levels reached in exposed adult non-smokers. Although tobacco smoke is known to contain carcinogens and co-carcinogens and may contain as yet unidentified carcinogens or co-carcinogens, no epidemiologic evidence has been assembled to define any risk of cancer associated with passive smoking or involuntary exposure. Potential effects of other smoke components (excluding carbon monoxide) on non-smokers have not been established and are conjectural.

Perhaps most serious are individuals with a history of severe asthma, who develop respiratory distress after exposure to tobacco smoke. Although their condition may not be due to a specific allergen, it follows that tobacco smoke can act as a nonspecific irritant to produce the same pulmonary signs and symptoms. Numerous other non-allergic, non-smokers feel impaired in their well-being if exposed to tobacco smoke. The World Health Organization defines health as a condition characterized not only by the absence of disease but also by the presence of full mental and social well-being. By this definition, the nonsmoker passively exposed to tobacco smoke may indeed have an adverse health response possibly on a psychogenic basis, or by heretofore undefined and obscure mechanisms.

These observations on the impact of tobacco smoke on non-smokers have been prepared by Russell W. Currier, D.V.M., Chief, Division of Disease Prevention, Iowa State Department of Health.

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Morbidity Report for January, 1978

		1978	1977	Most January Cases
	1978	To	To	Reported From
Disease Jo	inuary	Date	Date	These Counties
Chickenpox	572	572	1329	Scattered
Conjunctivitis	86	86	253	Scattered
Encephalitis, unsp.		1	255	Dubuque
Erythema	•		_	Dubuque
infectiosum	1	1	3	Madison
GI viral	•	•	,	1414413011
	2716	2716	3155	Scattered
Giardiasis	2	2/10	4	Allamakee, Polk
Hepatitis		-	7	,amakoo, 1 ok
infectious	15	15	10	Scattered
serum	6	6	6	Scattered
unspecified	4	4	5	Scattered
Histoplasmosis	2	2		Buena Vista, Polk
Impetigo	73	73	85	Scattered
Infectious	, ,	,,	0.5	
mononucleosis	65	65	87	Scattered
Influenza,	-	- 00	0,	222.70.04
lab conf.	49	49	_	Scattered
Influenza-like		",		
	9107	9107	3243	Scattered
Meningococcal		,	JZ 13	
meningitis	ı	- 1		Muscatine
Meningitis, unsp.	i	i	1	Polk
Mumps	10	10	276	Scattered
Pediculosis	48	48	17	Scattered
Pertussis	2	2		Shelby
Pinworms	ī	ī	9	Polk
Pneumonia	180	180	116	Scattered
Rabies in animals		11	12	Scattered
Rheumatic fever	i	i	3	Crawford
Ringworm	•	·		
body	17	17	37	Scattered
scalp	2	2	2	Johnson
Rubella	ī	ī	37	Sioux
Rubeola	4	4	539	Dubuque, Marshall,
				Wapello
Scabies	18	18	134	Scattered
Strep. infections	851	851	1501	Scattered
Tuberculosis				
total	8	8	10	Scattered
bact. pos.	6	6	9	Scattered
Venereal diseases	_			
Gonorrhea	339	339	504	Scattered
Syphilis (other)		10	30	Scattered
P. & S. Syphilis		1	7	Polk

Laboratory Virus Diagnosis Without Specified Clinical Syndrome Adenovirus—4, Coxsackie—1, Cytomegalovirus—1, Eaton's Agent infection—36, ECHO type 24—1, Herpes simplex—6, and Herpes zoster—1.

About IOWA Physicians

Dr. Charles Schwartz, family practice physician in Cedar Rapids since 1955, has been honored by 26 fellow citizens who have established the Dr. Charles Schwartz Medical Education Lectureship at St. Luke's Methodist Hospital. The lectureship will bring nationally recognized medical authorities to CR annually to present programs for area physicians. Early last year, St. Luke's unveiled its multi-purpose Charles Schwartz, M.D., Continuing Education Center. The Schwartz Center will be the site of the annual lecture. . . . Dr. Jose Martinez has been named president of Jennie Edmundson Hospital medical staff. Other officers are -Dr. Richard K. Green, president-elect and Dr. Q. M. Sebghati, secretary-treasurer. All are Council Bluffs physicians. . . . Dr. Michael F. E. Jones, Sioux City, has been named a diplomate of the American Board of Otolaryngology. Dr. Jones began practicing his specialty in Sioux City last August. . . . Dr. John Hughes, Marshalltown, was guest speaker at a recent meeting of Central Iowa Orthopedic Nurses Association. Dr. Hughes' topic "Back Pain and Lumbar Laminectomies." ... Dr. Don Koser, longtime Cherokee physician, recently was presented the Citizens Hall of Fame Award by the Cherokee Jaycees. Dr. Koser has been active on the Cherokee Parks and Recreation Commission, Cherokee Community Theater, Cherokee Arts Council, Iowa Arts Council and Cherokee Symphony Board. He is also a past president of Cherokee Rotary Club. The award was first presented in 1977 and is in recognition of a person who, over a period of many years, has contributed in a major way to the community.

Dr. Donald Reading, Marshalltown, was reelected to a three-year term on the Marshalltown Area Community Hospital Board at the annual meeting of hospital stockholders. Dr. Daryl Eggers, president of medical staff, presented a film at the meeting showing new procedures in medicine and

discussed their relationship to services now being performed at the Marshalltown Hospital. . . . New officers of the Medical Forum Study Club in Des Moines are—Dr. Marshall Flapan, president; Dr. Ala E. Daghestani, president-elect; and Dr. Bjorn Overgaard, secretary-treasurer. All are Des Moines physicians. Dr. Thomas L. Trunnell, retired Waterloo physician, recently was recognized by the Waterloo Goodfellows for his contributions to the community. Dr. Trunnell is a past president of the Waterloo Chamber of Commerce and the Black Hawk County Medical Society. He also served on the Riverfront Commission, on many YMCA committees, as chairman of the Waterloo Community Schools Title VII advisory committee and as director of Waterloo Heritage Homes, Ltd. The Goodfellows is a non-profit service group which honors citizens who contribute to the community. . . . Dr. Ralph Carpenter, Marshalltown physician for 37 years, retired in December. Dr. Carpenter received the M.D. degree at the University of Pennsylvania School of Medicine; interned at Johns Hopkins; and took additional postgraduate training at University Hospitals in Iowa City. He began his medical practice in Marshalltown in 1940.

Dr. Richard McClure, Waterloo, one of two forensic pathologists in Iowa, is among five doctors
recently appointed to assist Black Hawk County
Medical Examiner, Dr. Paul O'Keefe, Waterloo.
Other appointees, all family practice physicians,
are Waterloo doctors, Allen Cameron, Albert
Dolan and Eugene Smith and Dr. Jeffrey Crandall, Cedar Falls. Dr. McClure's primary duty
will be to assist law enforcement officers at the
scene of murders and other deaths where foul
play is suspected. . . Dr. Joseph G. Kruml,
Council Bluffs physician for 32 years, will retire
April 1. Dr. Kruml received the M.D. degree at
Creighton University School of Medicine in 1929;



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practiced at Ord, Nebraska, for 10 years and served 5½ years in the Army Medical Corps during World War II, prior to locating in Council Bluffs. He is a past president of the Mercy Hospital medical staff and Pottawattamie-Mills County Medical Society. . . . Dr. Janet Wilcox, University of Iowa student health physician, recently became president of the Johnson County Medical Society. Dr. Wilcox is the first woman to so serve in the organization's 65-year history. She received the M.D. degree at U. of I. College of Medicine; interned at Englewood Hospital in Englewood, New Jersey, and located in Iowa City in 1946. Her late husband, Dr. Robert Wilcox, was a director of the U. of I. Student Health Service. . . . Dr. Michael W. Hill was guest speaker at recent annual meeting of the Marshalltown Area Community Hospital Auxiliary. Dr. Hill, an otolaryngoloist, is a new member of the Wolfe Professional Clinic. A Des Moines native, he received the M.D. degree at U. of I. College of Medicine; interned at Santa Clara Medical Center, Santa Clara, California; and completed his residency in otolaryngology at Stanford University.

Dr. John Doran, Ames, was a recent guest speaker at Ellsworth Community College in Iowa Falls.



Dr. Doran's topic, "Current Concerns for Women," covered hormones, drugs, hysterectomies, new sexuality, cancer and other related topics. The program was sponsored by the Ellsworth College Faculty Wives and the College's Department of Adult and Continuing Education. ... Dr. Frederic M. Ashler, Hamburg, was guest speaker at recent series on pilot safety for all aviation-interested citizens in the Shenandoah area. Dr. Ashler discussed the aspects of flying while using common cold remedies. . . . Dr. S. T. Shetty, Mason City cardiologist, was guest speaker at a recent meeting of Mason City Medical Assistants. Dr. Shetty discussed the importance of exercise and proper diet in maintaining optimum heart function. . . . Three Des Moines physicians, Drs. Julio Aceby, Khosro Tigrani, and Stephen Cooper, spoke at a January meeting of the Jasper County Nurses Association. Included in their program was a discussion of the CT scan, ultrasonography, and nuclear imaging. . . . Dr. George L. River, Davenport, has been named a diplomate in the subspecialty of medical oncology. . . . Dr. Gary Hedge joined the Wolfe Professional Clinic in Marshalltown in February. Dr. Hedge received the M.D. degree at U. of I. College of Medicine; interned in the U.S. Navy and served an additional three years as a Naval Flight Surgeon. Following three years in general practice in Washington, Dr. Hedge returned to the U. of I. for a residency in ophthalmology.

Dr. Albert M. Dolan, Waterloo, was a recent program participant in a child abuse seminar at University of Northern Iowa in Cedar Falls. . . . Dr. Glenn Van Roekel, LeMars, was elected chairman of the Floyd Valley Hospital board of trustees at their January meeting. In addition to serving on the board of trustees, Dr. Van Roekel serves as physician advisor to the utilization review committee of the medical staff. . . . Dr. C. E. Hawtrey, Iowa City, was guest speaker at recent meeting of Iowa City Ostomates. . . . At a February meeting of the Johnson County Medical Society, Dr. John Scheibe, Bloomfield, spoke on health maintenance organizations. . . . Dr. Yang B. Son, Fort Madison, recently was awarded his United States citizenship. A native of Korea, Dr. Son located in Fort Madison in 1975 following completion of his residency in obstetrics and gynecology at Homer J. Phillips Hospital in St. Louis. . . . Dr. Charles E. Driscoll, Red Oak, recently served as a consultant to the Family Practice Residency program at Ball Memorial Hospital

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in Muncie, Indiana. Dr. Driscoll was one of four rural practitioners chosen as a consultant in the project, designed to provide a curriculum guide for conducting a family practice in a small community. . . . Dr. John E. Tyrrell, Manchester, has been elected vice president of the Iowa Health Systems Agency, Inc. board of directors. Dr. Russell S. Gerard, Waterloo, was reelected to a three-year term on the board.

DEATHS

Dr. Dayrle N. Crabb, 59, Denison physician for 27 years, and his wife, Kathryn, 57, were killed January 6 when their light plane crashed at Metro Airport in El Campo, Texas, southwest of Houston. Dr. and Mrs. Crabb were to begin a week's vacation hunting geese when the accident occurred. Dr. Crabb received the M.D. degree at U. of I. College of Medicine and interned in Sioux City. He began his medical practice in Denison in 1950. Dr. Crabb was a past president of Crawford County Medical Society; past president of the Flying Physicians Association; and past chief of staff of Crawford County Memorial Hospital. He had also served on the Denison Airport Commission and the Denison Community School Board. Mrs. Crabb was active in the Methodist Church on local and regional levels. She was a past president of the United Church Women and assistant dean of the School of Christian Mission. She was also a past president of the Denison Community Chest. Survivors include a son, Dr. Dennis Crabb, who joined his father in practice last summer, and three other children.

Dr. Stanley N. Anderson, 68, former Onawa physician, died December 25 at his home in Sergeant Bluff, Iowa. Dr. Anderson received the M.D. degree at U. of I. College of Medicine and interned at St. Joseph Hospital in Sioux City. He began his medical practice in Onawa in 1939.

Dr. Herbert E. Stroy, 79, Osceola, died January 22 at the home of his son in Council Bluffs. Dr. Stroy received the M.D. degree at the University of Nebraska School of Medicine. He began his medical practice in Osceola in 1926, retiring in 1974. Dr. Stroy was a former president of the State Board of Health; former Osceola city health official and Clarke County coroner. He was a life member of the Iowa Medical Society.

Medical Assistants



by BETTY EHLERT, CMA-A

NATIONAL SCHOLARSHIP AWARD

The Maxine Williams Scholarship Fund of the AAMA annually awards several scholarships to



Cathy Meier

students seriously interested in pursuing careers in medical assisting.

The 1977 Scholarship Committee selected Cathy Meier of Lenox, Iowa, as one of seven recipients of a scholarship award. Miss Meier graduated with honors

in the top 10 of her class at Lenox High School. She was listed in Who's Who Among American High School Students. She is attending Iowa Western Community College in Council Bluffs, is enjoying the medical assistant program and looks forward to becoming a certified medical assistant.

HUMAN RELATIONS CLASS

Des Moines Chapter members recently attended a four-week course in "Human Relations" sponsored by the Des Moines Chapter and the Department of Adult Education. The course was conducted by Karen Perlowski, Mercy Hospital medical social worker.

This most interesting and beneficial course covered the role of medical assistants in dealing with the doctor's patients in the office setting.

Speakers included Allen Silberman, Ed.D., a psychologist, and the Reverend Dale Stupefert, Mercy Hospital chaplain.

STATE CONVENTION PREVIEW

An interesting program is planned for Cedar Rapids April 28, 29, 30 when members of the American Association of Medical Assistants, Iowa State Society, Inc., meet for their annual state convention. Nonmembers are welcome!

M. W. Van Allen, M.D., of the University of Iowa College of Medicine, will speak on "Neurology"; James H. Ziska, M.D., Cedar Rapids, will discuss "Neonatal Care," and Franklin Koontz, Ph.D., of the University of Iowa, will have as his topic, "Venereal Disease."

The program also includes Iowa's own Jeanne D. Green, CMA-A, Davenport, NATIONAL PRESIDENT of the American Association of Medical Assistants, plus a style show and a karate demonstration entitled "Self Defense."

(The complete program and registration information will appear in the April issue.)

MEMBERSHIP IN AAMA

AAMA members shall strive to:

- Render service to humanity with full respect for the dignity of person.
- Respect confidential information gained through employment unless legally authorized or required by responsible performance of duty to divulge such information.
- Uphold the honor and high principles of the profession and accept its disciplines.
- Seek to continually improve their knowledge and skills of medical assisting for the benefit of patients and professional colleagues.
- Participate in additional service activities which aim toward improving the health and well-being of the community.

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FOR SALE—Miscellaneous office equipment—some near new. Contact Surgical Associates, 1407 Woodland, Des Moines, Iowa 50309. 515/288-9583.

MEDICAL DIRECTOR (F.P.)—Board certified, Board eligible, Family Practitioner and General Internist for primary care group practice in metropolitan area of 100,000. Robert Wood Johnson Foundation Grant and option for National Health Service Corps participation assist start-up. New building to be completed in 1978. Contact K. A. Rogers, M.D., or Mark S. Taylor, D.O., 4720 Gordon Drive, Sioux City, Iowa 51106. 712/274-2400.

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EMERGENCY ROOM PHYSICIAN (Full Time)—To provide physician coverage evenings Monday through Friday. 40-50 hour week in 385-bed community hospital. Contact Roo Mason, Assistant Administrator, Burlington Medical Center, 602 North Third Street, Burlington, Iowa 52601. Telephone 319/753-3277.

PSYCHIATRIC RESIDENCY—Vacancies for (PG2 through PG4 only) positions for July 1, 1978 for those who have a regular Iowa license or can obtain one by reciprocity or via FLEX. Prepare for career in private practice, community clincis or hospital based psychiatry. Emphasis on close supervision of intensive individual and group psychotherapy, OPD, Children's Unit, Adolescent Unit. Neurology affiliation with University of Iowa. The stipends are: 1st year, \$22,360; 2nd year, \$23,478; 3rd year, \$24,674. Intensity and diversity of training program appreciated best by personal visit. Write T. B. McManus, M.D., Superintendent, Mental Health Institute, Cherokee, Iowa 51012. Equal opportunity employer, or call collect 712/225-2594.

FOR SALE—Beautiful brick building located in Des Moines at 4019 Ingersoll. Ideal for dental or medical office. (Now occupied by dentist who wishes to retire.) Building has lovely walnut paneled office, large reception room, 4 treatment rooms, dark room, laboratory with electric stove and refrigerator, large bath with shower—all completely carpeted. Income from 4-Plex on back of 80' x 200' lot will help pay for property. Plenty of off street parking. Owner retiring. Contact Albert W. Aronow, D.D.S., 4019 Ingersoll, Des Moines, Iowa 50312 or call 515/279-9792.

INTERNIST AND FAMILY PHYSICIAN—Established need for both an internist and family physician to join seven man group in beautiful Northwest Iowa. New clinic building of 10,000 sq. ft. is located next door to 88-bed county hospital. Unusually progressive community of 10,000 offers 3,000 aere lake, 85 acres of parks and recreation, local liberal arts college, and many family interest features. Generous salary with incentive, malpractice insurance, liberal vacation and seminar time, partnership in one year. Contact D. A. Pritchard, Administrator, Buena Vista Clinic, 620 Northwestern Drive, Storm Lake, Iowa 50588.

MEDICAL DIRECTOR, CLINICAL DIRECTOR, INDUSTRIAL HEALTH and other medical opportunities available on a national basis. Salaries commensurate with experience. Top fringe benefits. Relocation expenses, interview expenses and agency fees paid by employers. Let us help you relocate to the area of your choice. Capital Personnel Service, 204 Securities Bldg., Des Moines, Iowa 50309. Phone 515-283-2545.

FAMILY PRACTITIONER—wanted to join two-man, incorporated practice—immediate opening—liberal fringe benefits—generous starting salary. Contact Business Manager, Clinic of General Medicine, P.C., 4001 Ingersoll, Des Moines, Iowa 50312. Phone 515/274-1518.

GENERAL SURGEON NEEDED—Excellent opportunity in west central Iowa community of 10,000. New hospital, partnership available, good contract. Call Ed Murphy, Carroll Medical Center, Carroll, Iowa. 712/792-1500.

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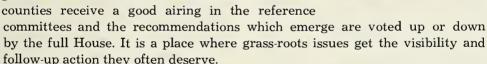
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President's Page

The Iowa Medical Society House of Delegates meets next month—May 6 and 7—in Des Moines. This is a busy, interesting and important two days for the state's medical profession.

This legislative session of the House will give 204 Iowa physicians a chance to be part of the Society's policy-making process. We have what appears to be the greatest number of delegates ever. An increase of 10 seats over 1977 is the result of a membership level not surpassed for 20 years. Each county society has at least one delegate with additional delegates based on physician population (one for every 15 or major fraction).

We believe the House of Delegates affords county medical societies an excellent forum in which to gain attention for their concerns. Resolutions from counties receive a good airing in the reference



There is still time for county societies to submit resolutions. We encourage their introduction. If your county has an issue before it, which has implications beyond your own boundaries, it may be appropriate to prepare a resolution.

I certainly urge each delegate to be in his/her place on May 6 and 7.

LW Swanson M.D.

L. W. Swanson, M.D., President

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JOURNAL OF THE

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JOHN W. ECKSTEIN, M.D. DEAN, COLLEGE OF MEDICINE

UNIVERSITY ISSUE

We look forward to sharing information about the College of Medicine with you at this time each year, and greatly appreciate the opportunity to do so through these pages.

This has been another busy year in the College of Medicine, as I am sure it has been for you. While it has been difficult, strenuous and frustrating in many respects, this year has also brought some good things to the College, and, on balance, has been one of progress.

The deaths of Sidney Sands and "Shorty" Paul, several retirements, and the inevitable "moving on" of other faculty cause pangs which many of you share with many of us, I know. It is always hard to lose colleagues who have not only made great impact on many hundreds of future physicians but who have also given stability and strength to this faculty over a period of years. At the same time, we are pleased that lowa is able to attract others already well on their way to becoming the Keettels and the Porters of the future. To help acquaint you with our newest department heads, brief biographies appear on Pages 122-123 of this issue.

Enrollment in all our classes is at its peak, the four health science colleges having reached or exceeded the enrollment goals which they set for themselves back in the mid-1960's. This impacts especially on Medicine's basic sciences departments, which provide instruction for students in at least six of the University's 10 colleges: Dentistry, Graduate, Liberal Arts, Medicine, Nursing, and Pharmacy. Impact of today's enrollments on the clinical departments is also considerable, and our faculty must continue to grow to accommodate it.

Also vital to clinical education, of course, are patients and a good hospital. We are extremely fortunate in having one of the finest teaching hospitals in the world as our clinical training base, and we hope its next

stages of capital development can proceed without delay. These are briefly outlined by John Colloton on Page 116. The IMS Executive Council is already on record as supporting these plans and the concepts for financing with bonds and a limited state appropriation.

One of the bright spots of the year has been the progress being made in attracting funds for education and research from private sources. Many of you have aided in this effort through your contributions to the College of Medicine Development Fund, and I want to tell you collectively—as I have tried to do individually—how much this help is appreciated.

Our major problem continues to be economic: how to maintain funding for a program of medical education at the level of quality that lowa people have come to expect. In a period of continually rising costs, with federal funds for instruction steadily diminishing, with a "plateauing" of income from other sources, and with no new major sources of support available to us, we are hard pressed to consolidate the gains we have made. Still more troublesome bills relating to medical education have been introduced recently in Congress. Thus the struggle goes on.

None of this is news to IMS colleagues, for you have been hearing these complaints with some frequency these past several years—and, through your own influence on the decision to replace some of the lost federal funds with state dollars, you have helped keep our situation from becoming as bad as it might have been.

For that help, for this space in the JOURNAL, and for all the countless other interactions which we enjoy with members and staff of the lowa Medical Society throughout the year, we are most grateful. Whatever our problems, budgetary or otherwise, being able to share them with you is more helpful than you can imagine.

The Question Box



by JOHN COLLOTON

UNIVERSITY HOSPITALS STATUS REPORT

Mr. Colloton is Director of University of Iowa Hospitals and Assistant to the University President for Health Services. In the following comments Mr. Colloton highlights the current and future picture at University Hospitals.

What capital developments have recently been completed or are currently underway at University Hospitals and Clinics?

While the familiar gothic tower at University Hospitals still crowns the hospital complex, construction to the south marks the site of Phase A of the Roy J. Carver Pavilion, Phase II of our Capital Replacement Program. Although the most notable of University Hospitals recent building efforts, construction of the Carver Pavilion has not overshadowed the recent opening of the \$15,000,000, seven story North Tower Addition, Phase I of our Capital Replacement Program. This addition is connected to the adjacent original main hospital by a unique, glass-walled "atrium" that preserves and provides an interior display of the face of the gothic tower, an Iowa City landmark since 1928.

Extensive remodeling throughout the original hospital has created a new Medical Intensive Care Unit and an adjacent \$500,000 consolidated Cardiac In-patient Service—a unit which includes six Coronary Care beds, an 18-bed Medical Cardiology Service, and a 21-bed Cardiovascular Surgery Unit. The pioneering efforts of the Urology Department to treat prostatic cancer with radioactive gold have been embodied in the new, \$400,000 Rubin H. Flocks Prostatic Disease Center.

Another feature of the redeveloped University Hospitals is a new Pediatric Cardiovascular Center, completed in 1975 at a cost of \$600,000, which is designed to serve the entire State of Iowa. We have also constructed and opened a new Pediatric Ophthalmology Clinic, a modern Otolaryngology Clinic, a Family Practice Center, a 40-bassinet Perinatal Intensive Care Nursery Unit, and a Cornea Center in the Department of Ophthalmology—the latter made possible through the generosity of the Iowa Lions Club. Other elements which are currently under construction or have recently been completed are a computerized EKG system which provides interpretation of EKGs originating in remote sites within University Hospitals, expansion and remodeling of the main lobby to upgrade and consolidate our new main entrance with the Carver Pavilion Lobby, establishment of a new non-invasive Cardiac Imaging Service, remodeling of the Pediatric Radiology Unit, and a two-story addition to the west wing of the General Hospital which will accommodate an expanded Renal Dialysis Center, a modern family-oriented Obstetrical Labor and Delivery Suite, and an enhanced Neonatal Service. University Hospitals has also recently received necessary approvals to proceed with the development of the \$13 million Phase B of Carver Pavilion which will add three additional inpatient replacement floors and two shelled-in clinic floors to the existing Carver Pavilion.

What facilities will Phase A of Carver Pavilion provide, and when will it open for use?

Phase A of the Carver Pavilion, which will have a phased opening beginning in May with all areas to be occupied by July 1978, will permit relocation of patient care programs now housed in the 1919-vintage Children's Hospital and on the University Oakdale Campus to the main hospital. The Pavilion will eventually be linked to the new \$3 million 750-stall parking ramp with an overhead "skyway." Carver Pavilion's 148 Phase A beds will replace those at Children's Hospital (orthopaedic beds) and Oakdale (pulmonary beds) and will provide ambulatory care facilities and faculty offices for the Orthopaedic and Neurology Departments, Psychiatric and Physical Therapy Clinics, and quarters for Patient Rehabilitation Supporting and Orthotic Services. An additional feature of the Pavilion will be a multispecialty trauma and emergency treatment center which will permit University Hospitals to meet its role in Iowa's evolving Emergency Medical Service Delivery System.

What improvements are planned for University Hospitals within the next several years?

Phase III of our Capital Replacement Program will consist of the construction of a second Pavilion to the south, which will be a replication of the Carver Pavilion. Initiation of this phase of our plan during a 1978-1985 time frame is essential to providing the State of Iowa the type of tertiarylevel teaching hospital required for the advent of the 21st century. This second Pavilion will consist largely of replacement facilities for several hundred non-conforming beds still located in the 1927 General Hospital facility. Construction of new inpatient facilities will permit conversion of the existing 1927-vintage main hospital to use for a host of tightly cramped supporting functions including those used to provide dining services for patients, visitors, and staff; clinical laboratories; faculty and professional staff offices; staff and student lounges; staff on-call quarters; and several highly saturated hospital department functions including Nursing, Systems Development, Environmental Services, Business Office, Medical Records, Pharmacy, and Social Services.

How will the proposed "Carver II" be financed?

To underwrite the cost of the second Pavilion to the south, our long-range plan involves the conversion of a portion of the current annual University Hospital state appropriation for indigent patient care support to capital financing. The conversion could be made possible by the evolution of a universal health insurance program which would underwrite some indigent patient care costs from federal sources, thus freeing a portion of the current state operating appropriation to University Hospitals for capital development use. The amount of the hospital's state capital appropriation requests through this conversion method will be predicated upon the present one-fourth of our Hospital utilized by state supported indigent patients and the volume of educational space included in the hospital which is approximately one-third of the total facility. Financing of the final Phase III development in this fashion will require no additional tax support for the state to underwrite a share of its teaching hospital's capital replacement program.

Significantly, none of the \$58 million expended over the past seven years on University Hospital capital development programs has come from state capital appropriations! Of that total expenditure, 83% has emanated from hospital paying patient revenues, 12% from federal grants and 5% from private gifts contributed through the University of Iowa Foundation by grateful patients, alumni of University Hospital residency programs and others interested in advancing the University Health Science Center.

Much to the credit of the University of Iowa, this pattern of self-generated capital financing is dramatically unlike that occurring in most midwestern university-owned teaching hospitals as revealed in a recent survey which indicated that somewhere between 91% and 25% of all capital development expenditures over the past six years in these teaching hospitals has come from state appropriated capital sources.

MEDICAL MISCELLANY

MEDICARE PAYMENTS . . . As Medicare Part B carrier, Blue Shield is currently complying with HEW edicts that each Iowa physician who had Medicare patients be queried by letter as to the accuracy of payment figures for Medicare services disbursed either directly or on assignment during 1977. Indications are it will be difficult to relate figures in the carrier letter to any office data to assure their accuracy. HEW is making the assumption if no objection is raised the figures are accurate. The figures are to become available for public inspection about April 30 in the carrier's office and at HEW's Baltimore and regional offices. This new "sunshine" effort is being undertaken following the previous HEW fiasco in releasing figures. The AMA has recorded its opposition to this activity.

ADOLESCENT PREGNANCY COUNCIL... Progress in the development of a new multi-disciplinary State Adolescent Pregnancy Council is being made. Working session of the new Council is set for April 13. David Little, M.D., Mason City, is chairman. D. O. Newland, M.D., Des Moines, and A. W. Bostrom, Jr., M.D., are both involved.

- FOOD
- FUN
- DRINK
- MUSIC





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AT THE '78 IMS HOUSE OF DELEGATES

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Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences— National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium* (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not rec-ommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures. necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido-all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCI, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constination has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



Roche Products Inc. Manati, Puerto Rico 00701

PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy—and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA

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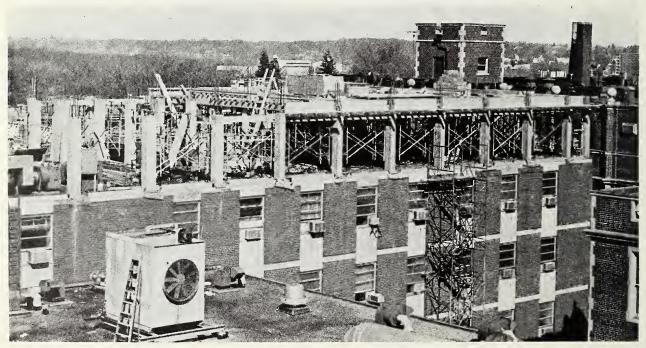
New Home for Cardiovascular Center

A new central "home" for the Cardiovascular Center is emerging at the College of Medicine. The facilities, programs and services to be included in this two-floor addition to the Medical Research Center are noted here. Construction is proceeding as are funding efforts.

OVER THE YEARS, the University of Iowa College of Medicine and University Hospitals have become known nationally for the excellence of their cardiology training and cardiovascular research programs. Today, some 70 faculty members are involved in a wide range of cardiovascular research, patient care and education. Because of

their recognized competence in this special area, U. of I. cardiovascular specialists in the basic sciences and clinical fields have never had difficulty in competing successfully with researchers from throughout the nation for funds to support their investigations. As a result, extensive federal and other agency support has been assured.

A critical need, however, has existed for several years for adequate physical facilities to carry on the many programs. Because there are no other sources to meet this need, College of Medicine faculty members in the cardiovascular programs are now launching an effort through the University of Iowa Foundation to obtain some \$1.8 million in private support to help construct a central "home" for the Cardiovascular Center.



EXPANSION IN PROCESS—Construction has started on the College of Medicine's new Cardiovascular Center, which will be a two-story addition to the Medical Research Center. This view from the southeast corner of General Hospital shows the Medical Laboratories Building in the lower-right corner.

The Center will be a two-floor addition to the Medical Research Center which links the Medical Laboratories Building and the General Hospital.

The Center will provide much needed core facilities for training, continuing education, and research. It also will permit greater cohesiveness and efficiency in the multi-disciplinary approach that has helped build the University's tradition of excellence in cardiovascular programs. The new space will provide an expanded area for the Cardiovascular Learning Resource Unit which provides important self-study programs for medical students, cardiology trainees, nurses and physicians in private practice.

The Center will help strengthen such programs as *Cardiology Today*, an intensive, four-day series of programs designed to provide a review and update for practicing physicians. The Center will also facilitate the highly recognized training programs for cardiology fellows by providing broader experiences in clinical cardiology, basic medical research or clinical investigation.

Research core laboratories that will be housed in the new addition will help streamline the work of projects which are seeking new knowledge on the fundamental processes that can lead to advances in detection, prevention and treatment of cardiovascular disorders. Many of the research projects under way are focused on the major areas of atherosclerosis and hypertension. Within these major areas are several different projects.

Sub-categories of investigation in atherosclero-

sis include tissue lipids (clinical and cell culture); primate atherosclerosis (regression and vessel wall characteristics); the role of endothelium and platelets in atherosclerosis and thrombosis (interaction between blood and the vessel wall); and two large clinical studies—Coronary Heart Disease Risk Factors in School Children and the Lipid Clinic's Coronary Primary Prevention Trial.

Sub-categories of research on hypertension include identification of factors influencing the natural history of the disease; new diagnostic approaches; the prevalence and incidence in childhood (the risk factor study in children); neurogenic control of the circulation; central nervous system integration; humoral factors in circulatory regulation; local and intrinsic mechanisms regulating tone of vascular smooth muscle; target organs in hypertension; and pharmacologic therapy.

Some \$2.1 million will be needed to construct and provide fixed equipment for the new Center and at least \$1.8 million must be raised from private sources. A major grant toward construction, which has already begun, will be provided from the Pearson Trust. The Pearson Trust was created by a bequest from the late Edith King Pearson of Des Moines. Her husband, Dr. William Pearson, who died in 1944, was a well-known specialist in otolaryngology. Anyone desiring additional information on the project or related giving opportunities can contact Michael New, University of Iowa Foundation, Alumni Center, Iowa City, IA 52242 (Phone: 319/353-6271).

MEDICAL MISCELLANY

HEALTH PLANNING . . . First Annual Implementation Plan, a required document, has been adopted by the Iowa Health Systems Agency board with an effective date of May 1. Additionally, the State Health Plan (bringing together the 3 HSA plans which involve Iowa counties) of the State Health Coordinating Council will be reviewed April 19. In another area, a multi-organization committee is at work drafting rules and regulations which will apply to the Iowa Certificate of Need law which becomes effective July 1. Finally, an IHSA-task force (which includes 8 physicians) has ended its work on hospital bed needs and occupancy levels and its recommendations have been released recently.

LEGISLATION . . . As this is prepared, state legislative activity in the health care realm is basically positive. Appropriations for the Family Practice Residency Program and the State Board of Medical Examiners have passed both chambers; Medicaid funding has passed the Senate. IMS-opposed optometric bill is on the House calendar.

MANDATORY ABORTION REPORTING . . .

Legislation to require the reporting of abortions may receive consideration by the Iowa General Assembly. Existing voluntary reporting has fallen to a point of limited usefulness. IMS policy supports abortion reporting for statistical purposes. Assurance of anonymity is the major concern of the Society.

New University Department Heads

Four physicians have been named to head departments in the University of Iowa College of Medicine within recent weeks and months. So named have been Irving P. Crawford, M.D. (Microbiology); Roy M. Pitkin, M.D. (Obstetrics and

Gynecology); Wendell C. Stevens, M.D. (Anesthesia), and John S. Strauss, M.D. (Dermatology). Following are brief biographies and pictures of these new department heads. Their leadership will be important to the total program.

IRVING P. CRAWFORD, M.D.

Irving P. Crawford, M.D., former member of the Microbiology Department at Scripps Clinic and Research Foundation, La Jolla, Calif., became professor and head of microbiology December 1, 1977. He succeeds Dr. John Roger Porter, a University of Iowa College of Medicine faculty member for 39 years and head of microbiology for 28 years, who retired in June, 1977.

Dr. Crawford received the A.B. degree with great distinction in 1951 and an M.D. degree in 1955 from Stanford University. He was a Post-doctoral Fellow and research assistant in microbiology at Washington University before serving two years with the Army Medical Corps in the Department of Virus Diseases at the Walter Reed Army Institute of Research.

In 1958-59, he was a National Foundation Postdoctoral Fellow at Stanford University. He was a faculty member at Western Reserve University from 1959 to 1965, when he joined the Scripps Clinic and Research Foundation. He was named recipient of a Career Development Award from the National Institutes of Health in 1960.

Dr. Crawford's research interests are in microbial and human genetics, gene action and regulation and microbial evolution. He is associate editor of GENETICS and has served as a member of the editorial board of ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS.

ROY M. PITKIN, M.D.

Roy M. Pitkin, M.D., a University of Iowa faculty member since 1968, became head of the Department of Obstetrics and Gynecology on Oct. 1, 1977. He succeeds William C. Keettel, M.D., who will continue to teach but who asked to be relieved of the departmental headship in which he has served since 1959. Dr. Keettel has been a member of the Iowa medical faculty since 1946.



IRVING P. CRAWFORD, M.D.



ROY M. PITKIN, M.D.

Born in Anthon, Dr. Pitkin received a B.A. degree with highest distinction in 1956 and the M.D. degree in 1959 from the University of Iowa. He completed residency training in obstetrics and gynecology at University Hospitals, served in the Medical Corps of the Navy and was an assistant professor at the University of Illinois before returning to the U. of I.

In 1973, Dr. Pitkin received a five-year Academic Career Development Award from the National Institutes of Health. The following year he was named an examiner of the American Board of Obstetrics and Gynecology.

He is editor of the YEAR BOOK OF OBSTETRICS AND GYNECOLOGY and is a member of the editorial boards of three professional journals. His research interests are in the area of maternal-fetal physiology in pregnancy complicated by various disease states.

WENDELL C. STEVENS, M.D.

Wendell C. Stevens, M.D., who returns to the University of Iowa faculty from the University of California at San Francisco, became head of the Department of Anesthesia Apr. 1, 1978. He succeeds Jack Moyers, M.D., who headed the department from 1967 to 1977.

Born in Mason City, Dr. Stevens received his medical degree from the University of Iowa in 1956 and completed his residency training in anesthesia at the University Hospitals and Clinics in 1963. He was appointed associate in anesthesia the same year and subsequently was promoted to assistant professor. He joined the University of



WENDELL C. STEVENS, M.D.

California faculty in 1967.

He has been active in the affairs of the American Society of Anesthesiologists and has chaired committees on the scientific program and on medical schools. He is a director of the American Board of Anesthesiology. His research interests are in the area of cardiovascular and respiratory effects of anesthetic agents.

JOHN S. STRAUSS, M.D.

John S. Strauss, M.D., former professor of dermatology at Boston University, became head of the Department of Dermatology Jan. 1, 1978. He assumes the post held for many years by Robert G. Carney, M.D., who died in November, 1976.

Dr. Strauss has been a professor and associate chief of dermatology at Boston University since 1966. Born in New Haven, Conn., he received a B.S. degree in zoology and an M.D. degree from Yale University.

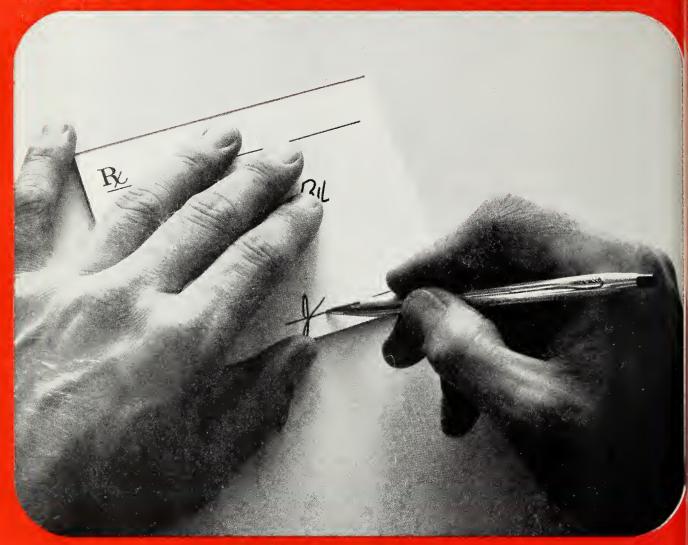
He was a U. S. Public Health Service Post-doctoral Fellow in dermatology at the University of Pennsylvania from 1955 to 1957. He is a member of the board of directors and chairman of the council of the education committee of the American Dermatological Association and serves on the editorial board of the Archives of Dermatology.

Dr. Strauss was president of the Society for Investigative Dermatology in 1975-76. Over the past 20 years Dr. Strauss and his research group have studied the function of skin glands and the changes which result from diet and hormone therapy, especially as these relate to the treatment of acne.



JOHN S. STRAUSS, M.D.

There is no substitute



yours...

Contraindications: Anuría, hypersensitívíty to this or other sulfonamide-derived drugs.

Warnings: Use with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. Cumulative effects may develop in patients with impaired renal function. Use with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma. May add to or potentiate action of other antihypertensive drugs, potentiation occurs with ganglionic or peripheral adrenergic blocking drugs. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possibility of exacerbation or activation of systemic lupus erythematosus has been reported. Lithium generally should not be given with diuretics because they reduce its renal clearance and add a high risk of lithium toxicity Read circulars for lithium preparations before use of such concomitant therapy. Use in Pregnancy: Thiazides cross placental barrier and appear in cord blood; in pregnancy, weigh anticipated benefit against possible hazards to fetus, including fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions that have occurred in adults. Nursing Mothers: Thiazides appear in breast milk; if use of drug is deemed essential, patient should stop nursing.

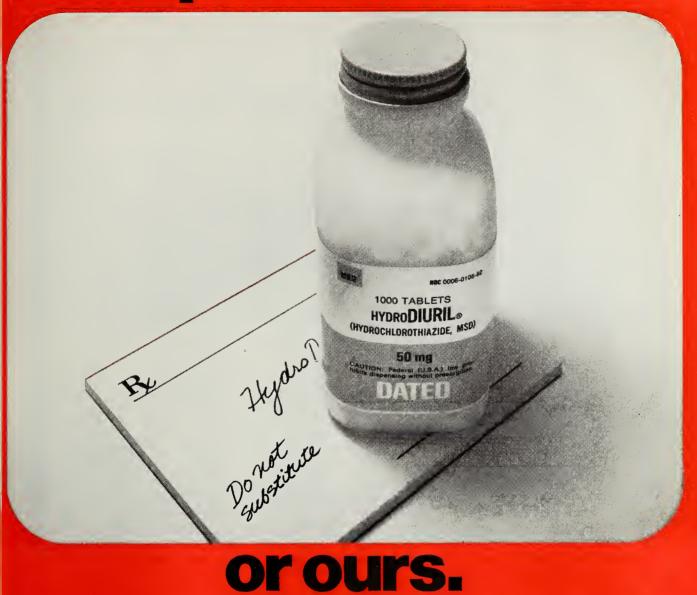
Precautions: Perform periodic determination of serum electrolytes to

Precautions: Perform periodic determination of serum electrolytes to detect possible electrolyte imbalance. Observe all patients for clinical signs of fluid or electrolyte imbalance, namely, hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when patient is vomiting ex-

cessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs, irrespective of cause, are dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting. Hypokalemia may develop, especially with brisk diuresis, in severe cirrhosis, with concomitant corticosteroid or ACTH therapy, or with inadequate oral electrolyte intake. Hypokalemia can sensitize or exaggerate response of heart to toxic effects of digitalis (e.g., increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content. Any chloride deficit is generally mild and usually does not require specific treatment except under extraordinary circumstances (as in liver disease or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt except in rare instances when the hyponatremia is life threatening. In actual salt depletion, appropriate replacement is the therapy of choice. Hyperuricemia may occur or frank gout may be precipitated in certain

patients. Insulin requirements in diabetic patients may be increased, decreased, or unchanged; latent diabetes mellitus may become manifest. Thiazides may increase responsiveness to tubocurarine. Antihypertensive effects of the drug may be enhanced in post-sympathectomy patients. May decrease arterial responsiveness to norepinephrine; this diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use. If progressive renal im-

for experience—



pairment becomes evident, consider withholding or discontinuing diuretic therapy. Thiazides may decrease serum PBI levels without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hyper-calcemia and hypophosphatemia have been observed in a few patients on prolonged therapy; thiazides should be discontinued before testing for parathyroid function.

Adverse Reactions: Gastrointestinal System—Anorexia; gastric irritation; nausea; vomiting; cramping; diarrhea; constipation; jaundice (intrahepatic cholestatic jaundice), pancreatitis; sialadenitis Central Nervous System—Dizziness; vertigo; paresthesias; headache; xanthopsia

Hematologic—Leukopenía; agranulocytosís; thrombocytopenía; aplastic anemía.

Cardiovascular—Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity—Purpura; photosensitivity; rash; urticaria; necrotizing angiitis (vasculitis) (cutaneous vasculitis), fever; respiratory distress including pneumonitis; anaphylactic reactions.

Other—Hyperglycemia; glycosuria; hyperuricemia; muscle spasm; weakness; restlessness; transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

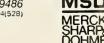
Note: When used with other antihypertensive drugs, careful observations for changes in blood pressure must be made, especially during initial therapy. Dosage of other antihypertensive agents must be

reduced by at least 50 percent as soon as this drug is added to the regimen. As blood pressure falls under the potentiating effect of this agent, further reduction in dosage, or even discontinuation, of other antibypertensive drugs may be percessary.

antihypertensive drugs may be necessary. **How Supplied:** Tablets containing 25 mg hydrochlorothiazide each in bottles of 100 and 1000 and single-unit packages of 100; Tablets containing 50 mg hydrochlorothiazide each in bottles of 100, 1000, and 5000 and single-unit packages of 100; Tablets containing 100 mg hydrochlorothiazide each in bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

J6HD04(528)



In hypertension

TABLETS: 25 mg, 50 mg, and 100 mg

Hydrodiurie (Hydrochlorothiazide|MSD)

Update on Community-Based Activity

The following reports present highlights on some of the community-based activities of the University of lowa College of Medicine. The information has been excerpted by the U. of I. Health News Service from information compiled by the Office of the Dean and the Office of Community-Based Programs.*

EARLY IN THE 1970's, the University of Iowa College of Medicine joined health professionals and community leaders in Muscatine and later in Red Oak to plan and develop two "model" programs of health care delivery. The major objectives included: (1) to provide educational opportunities in primary care medicine for certain health profession students; (2) to develop systems of health care delivery that would attract physicians and which might be replicated in other Iowa cities; and (3) to evaluate the effectiveness of the systems and their impact upon the health of the communities. The following summary of the Muscatine model program has been excerpted from a more extensive report being prepared by Tom Walsh, an Iowa City writer, for publication by the College of Medicine.

MUSCATINE—MODEL COMMUNITY HEALTH CENTER

When Muscatine representatives approached College of Medicine officials for help in recruiting physicians, the community health manpower situation was grave. At stake was the health care de-

livery for a growing rural/urban population of some 40,000. The number of physicians practicing in Muscatine had dropped 56 per cent, from 25 in 1960 to 11 by 1972. Five of the 11 were over 60 years old and two were past 70. Only 6 of the 11 provided primary care. Many community residents traveled to Iowa City or to the Quad Cities area for medical care. The usual physician recruitment efforts had been tried persistently but without success.

The timing of the Muscatine call for assistance from the University was nearly perfect for both the community and the College of Medicine. The College was launching a new Department of Family Practice and planning a training program for physician's assistants. Both programs needed bases from which to provide community-oriented experiences in primary care. In addition, a real "community laboratory" was needed to study different methods of health care delivery to determine their potential benefit.

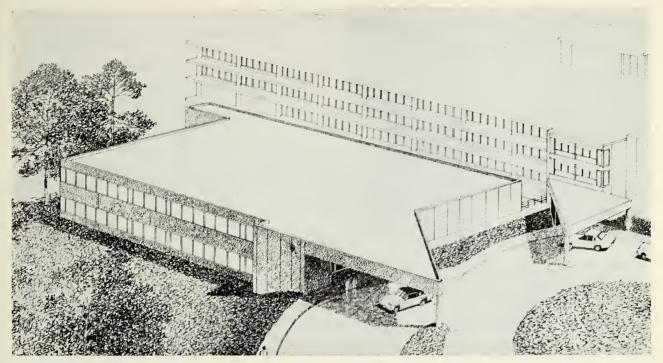
By 1972, a preliminary operational plan was developed for the Muscatine Community Health Center. It was to be a fee-for-service group practice combining primary care specialists—family physicians, internists and pediatricians—into a "team approach" that would maximize the use of physician's assistants. In the final plan, an internist and a pediatrician would serve as "on-site" consultants to three family physicians at the Center as well as to other community physicians. Rotations of resident physicians in primary care departments at University Hospitals, rotations of U. of I. physician's assistant students, and programs of continuing education for Muscatine health professionals were planned.

COMMUNITY SUPPORT

Right from the start, the project received strong and broad community support. The first financial

(Please turn to page 127)

^{*} U. of I. College of Medicine activities in the various programs described in these reports are administered by Paul M. Seebohm, M.D., executive associate dean, and by Mr. Bruce Brenholdt and Mr. Roger Tracy, who coordinate activities of the College's Office of Community-Based Programs.



NEW FACILITY—The Muscatine Community Health Center will soon be occupying the new \$1.8 million structure depicted in the foreground of this artist's drawing. Muscatine General Hospital is the large structure in the background.

help for the Center came from Roy J. Carver, Muscatine industrialist, who earmarked part of a \$3.5 million grant to the University to provide assistance to the Center. Later support came from the Iowa Regional Medical Program and then, with the plan off to a good start, substantial funding for the health care delivery demonstration and educational phases of the program came from the W. K. Kellogg Foundation of Battle Creek, Michigan.

Community leaders, through the formation of the Muscatine Community Health Foundation, raised \$200,000 to construct a temporary, but functional, 5,824-square-foot prefabricated modular building near the county Muscatine General Hospital. Although the Center was not opened until September of 1973, the first two project physicians started seeing patients in temporary quarters in July. Within a year of groundbreaking for the building, the Center was staffed with 31 persons, including three family physicians, a pediatrician, a medical social worker, five physician's assistants, five health technician-nurses, and laboratory and support personnel.

Four years is hardly enough time to make any final assessments concerning this "model" concept which has taken much of the "tried and true" from group practice, added some new dimensions, and introduced a strong educational emphasis into the community and the life of the health professionals who serve it. But, just how has it gone during this period?

RESULTS TO DATE

The Center sought not only to attract physicians for its operation, but more importantly by its very existence it has had a goal of helping to create a new professional climate in Muscatine to aid community physicians in attracting other physicians. The Muscatine physician census, including Center physicians, has gone from the 11 of 1972 to 21 this year and several other physicians have expressed an interest in coming to Muscatine.

How have the Center physicians accepted the innovations introduced by the model concept? It has not fit the practice style of all. Most of the original staff came to the Center after years of experience with other modes of medical practice. Some did not find either the assistant program helpful or the educational aspects stimulating—at least not sufficiently so to keep them from leaving for another type of practice. The physician's assistants also have shown some mobility, but replacements have been hired without undue delay.

Since 1976, three new physicians have joined the two who remained from the original cadre.



PA USE—Physician's Assistant Mike Oliver performs an otoscopic examination at the Muscatine Community Health Center. Extensive use is made of physician's assistants in the Center's "team approach" to health care delivery.

The present group has a number of things in common: they are all about the same age (28 to 30); all are Board certified in their specialties, and all are active in continuing and professional education. Their presence has already reversed the recruitment posture of the Center from a seller's to a buyer's market. New interest in joining the Center is being expressed not only by U. of I. residents rotating through the Center, but by trainees in programs elsewhere in the country.

In the educational realm, residents in family practice, internal medicine and physician's assistant students have found their experiences at the Center rewarding. From the residents have come comments such as:

"This rotation is more like we will experience as practicing family physicians than any other rotation our residency offers...."

"Overall, an excellent experience, especially the first-hand experience of working with well-qualified PA's. A good look at a group practice with specialty consultation in the same building...."

"A rewarding experience—sufficient variety of clinical material and exposure to real-world office experiences...."

". . . the only experience I have had which allows me to experience primary internal medicine care."

And from the physician's assistant students: "Both the physician and the PA (on my team)

were willing to listen, to help and to teach. Both were friendly and down-to-earth."

"An excellent chance to see the PA work in a clinic setting with a great deal of autonomy. . . ."

A number of medical and nursing students and one dietetic intern have also taken clinical rotations at the Center.

COMMUNITY ACCEPTANCE

How has the Center been utilized by residents of the community? In 1974, 23,748 patient encounters were recorded and 9,200 patient records were filed; in 1977, there were 37,976 patient encounters and 27,000 patient records on file. Among the goals of the model program are to monitor and evaluate the impact of the Center on the health care of the community. As part of this research program, a survey was done early in the existence of the Center to determine community attitudes toward the facility and its team approach to health care delivery.

Among the findings of that survey: 7 of 10 persons endorsed the team concept, while only 12 per cent said they disliked it; more than 70 per cent felt that availability of a health care team was more important than always seeing the same physician; only 20 per cent had a negative general reaction to PA's, and only 3 per cent questioned their competence; 71 per cent of the respondents said they would continue to use the Center, while 17 per cent were undecided, and about 7 per cent said they would not.

Some insights provided by another survey in 1977, which questioned nearly 300 of the original 430 families: 313 of 1,323 persons questioned said someone in their household considered the Center as their primary, usual source of medical care, as did 29 per cent of the households surveyed; persons attending the Center tend to live within Muscatine and have higher incomes and smaller families than residents not attending; residents not attending the Center were much more likely to know a community physician well enough to call him immediately and discuss a personal medical problem; Center patients requiring hospitalization were more likely to be hospitalized in Muscatine, while those treated by other physicians were more likely to be referred to Iowa City hospitals; there seemed to be no significant difference in out-of-pocket expenses for physician services provided by those affiliated with the Center and those not affiliated.

While the opening of the Center in 1973 brought several new features in health service availability—around-the-clock staffing of the emergency room at Muscatine General Hospital, for example, and regular visits by PA's to private and county nursing homes—probably one of the greatest impacts of the Center on the community health care picture has been the revitalization of the 115-bed hospital. In the early 1970's, for instance, 35 per cent of the Muscatine residents who needed hospitalization were admitted to hospitals in other cities. One in five newborns was delivered elsewhere.

But inauguration of the Center brought new physicians to the hospital staff and community physicians also began to attract new specialists. The hospital trustees first approved a \$400,000 project to develop a new coronary-intensive care unit as the result of an internist agreeing to come to Muscatine to join the Center and hospital staffs. Location of the Center near the hospital also was an economical decision which allowed both facilities to share such services as laboratory and x-ray and, in some cases, staff members. By 1976, a community which earlier had exhibited only marginal confidence in its only hospital gave 73 per cent approval for the sale of \$1.8 million in general obligation bonds to help finance a projected \$4 million expansion and modernization program for the hospital.

Says J. W. Myers, administrator of Muscatine General for 25 years: "We realized long before our building program began that the hospital was one of the shortcomings Muscatine faced in trying to attract new physicians. Physicians practice medicine, they don't practice business, and new physicians coming into a community often expect

PHYSICIAN DATA SYSTEMS

The Office of Community-Based Programs has developed and is operating two data systems used in support of its planning and administrative activities. One data system, a continuous inventory of physicians practicing in Iowa, will be described in detail in a series of articles to be submitted soon for publication by the JOURNAL OF THE IOWA MEDICAL SOCIETY. The computer-based inventory is used to monitor medical manpower trends in Iowa and can characterize the physician population by age, specialty, medical education, practice



NEW CICU UNIT—Checking patient charts in the new Coronary-Intensive Care Unit at Muscatine General Hospital are John Ellis, M.D., internist at the Muscatine Community Health Center, and Larry Maguire, M.D., clinical fellow in internal medicine at the University of Iowa Hospitals and Clinics.

the hospital to be fully equipped to provide them both with the tools they need and skilled ancillary personnel.

"I don't think there is any feeling the changes that have occurred in Muscatine were masterminded by the University any more than by the community," says Myers. "These changes were not made with an iron hand, but with cooperation. We were going out looking for help. Things were so bad, we were happy to have their involvement. They were mindful and sensitive to our needs, and they've helped us a great deal."

There now is considerable evidence that Muscatine has weathered the long and severe "winter of deterioration" that struck its health care services. And as this Spring arrives, the residents and community leaders are pointing with pride to their latest achievement and contribution—a new \$1.2 million, two-level permanent home for the Muscatine Community Health Center.

location and type of professional activity.

The second data system is the Family Practice Resident Information System, which is a prospective account of all physicians who enter family practice training in Iowa. The record begins with residents who entered training in 1971, the initial year of family practice training in Iowa, and is current with the inclusion of the group of residents who started their training this year. Information stored in the computer-based system includes demographic, educational and practice-related data. The data system helps the College of Medicine meet part of its statutory responsibility relative to family practice training in Iowa.

PHYSICIAN AND COMMUNITY INFORMATION/CONSULTATION SERVICE

Another young but increasingly important part of the College of Medicine Office of Community-Based Programs is the Physician and Community Information/Consultation Service. In cooperation with the Iowa Medical Society, this service responds to requests for recruitment assistance from physicians and communities. Objectives of the service are to assist physicians in identifying Iowa medical practice opportunities; help practicing physicians and communities organize for medical recruitment; counsel physicians who are interested in considering alternative modes of practice organization and management; and advise small communities, unlikely to recruit physicians, of other options to improve access to primary care.

In 1976, staff members of the Office of Community-Based Programs provided on-site consultation to 19 Iowa communities. Other information or consultation services were provided to 70 additional communities. In 1977, similar assistance was provided to 134 Iowa communities, with onsite visits being made to 30 of these towns. Community visits regarding recruitment are usually arranged after an invitation is received from

FAMILY PRACTICE RESIDENCY PROGRAMS

Most Iowa physicians and hundreds of Iowa community leaders and residents are now familiar with the Statewide Medical Education System. It was created by the Iowa General Assembly in 1973 to develop a network of community-based programs for training resident physicians in family practice. The College of Medicine was charged with the responsibility of implementing and coordinating the operation of the System.

The System already has made a significant impact in various areas: (1) physician manpower in Iowa; (2) attracting College of Medicine graduates into family practice; (3) enriching the educational environment in the hospitals and communities in which programs are based; (4) serving as an attraction for specialists who are selecting sites for practice; and (5) stimulating development of continuing medical education for

someone representing a community group, frequently a physician. When a meeting is scheduled, all physicians in the area are invited to attend. A film produced by the U. of I. Department of Family Practice, "New Country Doctors: Changing Concepts in Rural Medicine," is often used to supplement a presentation by a representative of the College of Medicine. Discussion usually concerns methods of organizing a recruitment effort and specific recruitment techniques.

As a complement to these community activities, the Office of Community-Based Programs assists doctors who are interested in Iowa medical practice opportunities. Physicians completing Iowa residencies, or those training or practicing outside Iowa, receive staff assistance from the Office of Community-Based Programs upon request. The staff helps an inquiring doctor identify practice opportunities and make contact with doctors in interested Iowa communities. Current community profiles and medical rosters are prepared by the staff for use in this activity. The Office of Community-Based Programs also is called upon by individuals in the clinical departments of the College of Medicine and other University colleges for current information about Iowa's medical and hospital resources and for assistance relative to program development in Iowa communities.

practicing physicians and other health professionals at the community level.

Eight accredited family practice residency programs have now been established in seven Iowa communities and a ninth one is under development in osteopathic family practice at Des Moines General Hospital. Programs are located in Cedar Rapids, Davenport, Des Moines (2), Iowa City, Mason City, Sioux City and Waterloo. All programs have residents enrolled except Waterloo, which missed the matching program in 1977, but which is to have a first-year complement by July.

The programs have not only been attractive to Iowa medical graduates, but graduates throughout the nation. Last year, there were just under 1,000 inquiries and 378 applications for the 60 first-year positions available. In all three years, there are now 139 physicians in training, a figure projected to reach 164 next year as the programs come close to the optimal level set for the Statewide System. One-half of the residents now in training received their medical education in Iowa.

(Please turn to page 131)

The following table shows the total number of residents and the number in each year of training at each site this year.

Program	No. of Residents	R1	R2	R3
Broadlawns (D.M.)	. 27	П	9	7
Cedar Rapids		8	8	8
Davenport		7	6	3
lowa City	. 29	10	10	9
Iowa Lutheran (D.M.)	. 23	8	8	7
Mason City	. 10	4	2	4
Sioux City	. 10	4	5	1
Totals		52	48	39

58% PRACTICE HERE

A total of 75 residents have now graduated from the program and another 12 left to enter practice after one or two years of training. Two graduates who left Iowa entered the Public Health Service to satisfy scholarship requirements and may return to practice. Of the 87 residents who graduated or took one or two years of training, 50, or 58 per cent, are now practicing in Iowa and 25 are in towns of less than 10,000 population.

When the residency programs first started to graduate family physicians, the recruiting activities of many community groups soon started to overwhelm the residents in training. In some cases, the activity was sufficiently disruptive to have a negative effect on the recruiting efforts. Several measures were taken to ease this situation, including encouragement of communities to limit their contact to residents in the third year of training. To facilitate this, each program director provides inquiring communities with the names, pictures and information on the general interest of the third-year residents in their program.

RED OAK—MODEL REGIONAL PRIMARY CARE PROGRAM

Describing his pre-1975 practice, Jack Fickel, M.D., of Red Oak, says, "I had a traditional solo practice in a town where all the physicians were solo practitioners. We had a loose arrangement to cover for one another, but there were situations when this was inadequate."

The townspeople in Red Oak (population 6,210) and the community physicians had tried recruiting young doctors for several years without success. "Our selling point was that there are so



PROGRESS—In 1975 the Family Care Center moved into a new \$300,000 Red Oak professional building. The Center is adjacent to Montgomery County Memorial Hospital.

many patients a young doctor could work night and day if he wanted to," Dr. Fickel says. "It's obvious to me now the prospect of going into solo practice at Red Oak couldn't have seemed very attractive if it made doctors look as haggard as all of us looked," he reflects.

At the same time the southwest Iowa community was seeking new physicians, College of Medicine administrators were planning what was to be called a Model Regional Primary Care Program. Outlined in the 1974 proposal was a program to demonstrate a method for revitalizing a rural area's primary medical resources and for providing comprehensive primary medical care in a rural region. Other purposes would include the conduct of educational activities, community health programs and evaluative studies.

The general concept of the plan called for these activities to be conducted by a private group medical practice in a larger rural community remote from the University. The role of the College would be that of a technical consultant and advisor to community physicians, hospital representatives and community leaders, and to provide educational resources as needed. The College also would help other rural Iowa communities replicate elements of the general program concept.

Southwest Iowa was chosen as the target area for the program. College representatives made more than 50 site visits to 10 Iowa communities before Red Oak was selected as the appropriate location for the model program. Dr. Fickel and another Red Oak physician, Harold Bastron, M.D., agreed to consolidate their practices and recruit additional physicians as initial steps in implementing the program.

The pace of planning and action picked up



PATIENT REVIEW—Staff members and medical students at a Saturday conference at the Family Care Center. Seated, left to right, are Vicky Krauth, family nurse practitioner; Francis Pisney, M.D.; Matt Knight, U. of I. junior medical student; Mark Odell, U. of I senior medical student; and Jack Fickel, M.D. Standing are Bill Artherholt, D.O. (left) and Larry Johnson, physician's assistant. The Center's other physician, Charles Driscoll, M.D., took the photo.

quickly. The "Red Oak Citizens Action Committee" was formed to provide a mechanism for public input. The citizens committee assisted local physicians with planning and recruitment activities, and kept the general public informed of plans and progress.

Drs. Fickel and Bastron established their medical group as a legal entity (a professional corporation) and named it the Family Care Center. The physicians adopted the following principles as their guides for delivering patient care: (1) to provide comprehensive primary medical care of high quality to patients and their families; (2) to provide care in an unhurried, personal and friendly way; (3) to ensure that a physician is available at all times; (4) to care for the patient in the most economical way consistent with the Center's standard of quality; and (5) to emphasize health maintenance. Operational policies, support systems and control mechanisms were established by the Center to achieve these purposes.

The first residency-trained family physician was recruited to the Center and began his duties in mid-1975. A family nurse practitioner joined the staff and a satellite office was opened in Malvern, a community of 1,158 some 20 miles west of Red Oak. The Family Care Center group moved into a newly completed, \$300,000 professional building adjacent to Red Oak's Murphy Memorial Hospital. An internist and a surgeon also moved into the building.

With a solid foundation of planning accomplished, the W. K. Kellogg Foundation announced

in January of 1976 it would provide substantial support to the College of Medicine for the model program in Red Oak as had been done for the Muscatine model. Again, Kellogg Foundation funding would support the demonstration, education, community health and evaluation activities related to the model program and its replication, as appropriate, in other Iowa communities.

By mid-1976, there was further confirmation of the positive influence on physician recruitment and of the group practice concept and other elements of the model. Two more residency-trained family physicians, both native Iowans, arrived to join the group, allowing the Center co-founder, Dr. Bastron, to retire as planned. The staff then consisted of four family physicians, three registered nurses, a medical assistant, a laboratory technician, a clinic manager and six clerical staff. A physician's assistant joined the Center staff in late-1976.

The Center's initial clientele came primarily from the practices of Drs. Bastron and Fickel, who in 1975 had some 4,500 persons who considered them their family physicians. From this base, the number of "registered" patients at the Center grew to 7,600 (about 1,900 family units) in 1976 and to 8,500 "registered" patients (about 2,600 family units) in 1977. The number of patient visits in the Center increased to a total of 20,654 in 1977. About 85 patient visits are recorded on a typical day and some 12 to 15 patients are seen at the hospital.

The growth in the number of patients using the Center has come from families without a physician; nearby communities where there is a shortage of physicians; and from families in the area who had previously sought routine medical care outside the community. The Center physicians and physician extenders also provide medical services to inpatients and emergency room patients at Montgomery County Memorial Hospital (re-named from Murphy Memorial), in Red Oak and to persons at several area nursing homes.

Few patients are dissatisfied with the care they have received at the Family Care Center. Before the opening of the Center, a concern was expressed by a number of residents that patients would be *assigned* a doctor instead of choosing, and seeing, their own family physician. This concern proved to be unfounded because of Center emphasis on continuity of care and informed choice by the patient.

Obstetrical patients delivered since completion

of the first series of Center prenatal classes have expressed a high level of satisfaction for the classes. Patients also expressed satisfaction with the prenatal care they received from their physician and nurse practitioner (who saw the patients on alternate visits to the Center) and with the Center's family-oriented approach to child-birth.

The group practice in Red Oak has been a popular site among Iowa medical students for their community-based training. Last year, 12 students from the College of Medicine took preceptorships at the Center. Also, Montgomery County Memorial Hospital in cooperation with the Center, participated for the first time in 1977 in the College of Medicine MECO (Medical Education—Community Orientation) Program. A sophomore student spent 10 summer weeks working at the hospital and with community physicians.

A number of continuing medical education programs for area physicians have been conducted in Red Oak. Each conference focuses on selected types of medical problems typically seen in the office by family physicians (problem-oriented records and maintenance of a disease index facilitate the selection of appropriate topics and subsequent record reviews). "Visiting professors" from the College of Medicine assist the Family Care Cen-

ter in conducting an audit of the medical records of ambulatory patients seen at the Center. A discussion of findings from the audits is an integral part of each continuing medical education conference.

The Model Regional Primary Care Program has sought to broaden the scope of medicine as traditionally practiced in rural areas through the conduct of community health programs. Patients of the Center receive instruction on health maintenance and information regarding specific health problems. The Center also conducts community health education programs in cooperation with voluntary health organizations, area schools and service clubs.

From the standpoint of time elapsed since its inception, the Model Regional Primary Care Program might still be considered a fledgling. The lessons already learned from the model, however, have now had wide distribution and "The Red Oak Story" has become symbolic of the revival of medical care in rural communities. The practicability of attracting young physicians to rural communities of 5,000 or more population can no longer be questioned—if local physicians take a leadership role in developing a positive professional atmosphere and an attractive practice setting.



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The College of Medicine in an Era of Mandatory Continuing Education

KEEPING ABREAST of medical knowledge used to be a matter of personal choice for the practicing physician. Today it is fast becoming a matter of professional survival. "For all practical purposes, Continuing Medical Education (CME) is no longer voluntary for practicing physicians," asserts C. H. William Ruhe, M.D., senior vice president of the American Medical Association and its leading expert on continuing education. Dr. Ruhe points out that in more than half the states, CME is required either for licensure or medical society membership.

The University of Iowa College of Medicine and its Office of Continuing Medical Education will be playing an important role for Iowa physicians in the new era. Fully accredited by the Liaison Committee on CME, the College of Medicine is qualified to assist in the development of programs and thus co-sponsor activities that will enable participating physicians to acquire Category 1 credit for the AMA Physician's Recognition Award.

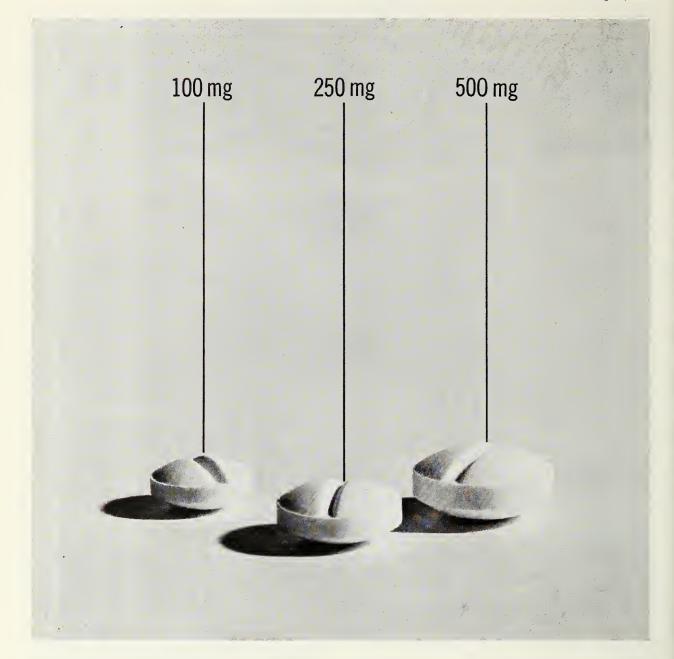
The accumulation of CME credits is becoming an essential part of a practicing doctor's professional life. Medical specialty recertification, at least on a voluntary basis, will be implemented by all specialty boards in the next few years. The Iowa State Board of Medical Examiners will decide soon on educational requirements for relicensure as required by Iowa law.

Physicians are asking what they will need, in addition to CME participation, when the medical specialties to which they belong establish recertification programs. Richard M. Caplan, M.D., Associate Dean for Continuing Medical Education at the University of Iowa, urges physicians belonging to all medical specialties to be alert for information from their respective boards and societies concerning recertification requirements.

The University of Iowa College of Medicine seeks to respond to the lifelong educational needs of physicians and allied health personnel by providing high-quality educational offerings. Its Office of Continuing Medical Education may be called upon to:

- Assist in planning educational programs and evaluating learner performance and program success.
- Suggest College of Medicine faculty to serve as educators and presentors for community-level programs.
- Provide planning and program coordination between College of Medicine faculty and local sponsors of CME activities.
- Provide information on policies, procedures and criteria for obtaining accreditation of medical education activities.
- Discuss with interested persons new and innovative approaches to continuing medical education.
- Consult with physicians on audio-visual materials and equipment, patient education and self-instructional packages now coming into use.

Dr. Caplan and his staff would be happy to discuss your personal CME needs. Inquiries regarding services or requests for assistance should be addressed to: The Office of Continuing Medical Education, University of Iowa College of Medicine, 285 Med Labs, Iowa City, IA 52242. (Phone: 319/353-5763)



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M. E. ALBERTS, M.D., Scientific Editor

UNIVERSITY ISSUE

In the Spring a young man's fancy lightly turns to thoughts of love.—Tennyson

These famous words speak of one human emotion of inestimable significance. Certainly love can be awakened through the beauty of blooming flowers, the greening of grass and the return of song-birds. Yet there are other thoughts that come alive this time of year, thoughts of golf, boating, tennis, gardening, etc.

We have thoughts of the foregoing too, but each year at this time your IMS JOURNAL staff also turns its fancy to the University of Iowa College of Medicine. It has become a tradition to identify the April JOURNAL as the University Issue.

1978 HOUSE OF DELEGATES

A large number of Iowa physicians will have no representation at the IMS House of Delegates when it convenes in Des Moines May 6 and 7. How so? There are 204 delegates who represent their constituent physician members.

Previous meetings of the IMS House have convened with as many as 35 counties unaccounted for when the roll is taken. Unfortunately, tradition will probably continue along these lines. For whatever reasons, many elected delegates fail to appear. This is regrettable inasmuch as our annual and relatively brief policy-making session has a distinct and important bearing on each physician individually and the medical profession totally during the ensuing year.

Some may reason those delegates on the periphery of the state have too great a distance to travel and are at a disadvantage compared to those in Des Moines. Yet, a central location af-

The College is invited to provide material which will give Iowa physicians a sort of status report on programs and accomplishments. The practicing physicians of Iowa are indebted to the College for its dedication to and achievement of high quality in the world of medicine. In turn, the faculty must recognize its indebtedness to the practicing physicians and the students for the challenge each represents in the quest for education.

We are pleased to identify this as the University Issue. While we have opportunity to publish papers by University faculty throughout the year, this represents a special and slightly different means of recognizing our academic colleagues. We submit this as our Springtime salute to the College of Medicine.—M.E.A.

fords an equitable situation in terms of distance for those on the perimeter.

Our best wishes go to all the delegates who represent us. As individual member physicians, we entrust to them our confidence and request that they participate in the deliberations in a responsible and representative fashion. We should inform our delegates of our feelings on the major issues of the day so they will have a sense of how their constituents stand if and when a particular subject is addressed, e.g., health planning costs, etc.

The IMS Auxiliary will also be in session on May 5 and 6. The Auxiliary Board of Directors invites the spouse of every Iowa physician to "greet and grow" at the meeting. Mrs. J. L. Kehoe of Davenport will preside. The keynote address will be given by Mrs. Manuel A. Bergnes of Norristown, Pa., the president-elect of the AMA Auxiliary. Mrs. Noble W. Irving, Jr., of Des Moines, will be installed as IMSA president. Our greetings are extended to the Auxiliary and our commendation for its continuing good work and excellent support of the Society.—M.E.A.

SOME KIND WORDS FOR DOCTORS

In recent months there have been several occasions when articles from the Journal of the Iowa medical society have either been summarized extensively or reprinted by the DES moines register and tribune. It is our pleasure to turn the tables and reprint with permission an article by Political Writer James Flansburg which appeared in the DES moines sunday register of March 12, 1978.

Some time ago, a Des Moines woman arrived at the doctor's office for her regular checkup and, after the preliminaries, was told that the doctor was off delivering a baby. She settled in with a magazine, content to wait for the friend who, in 20 years, had seen her through four childbirths and the usual run of not-very-serious illnesses and disorders.

The doctor is the sort who is not afraid to say, "Oh, God, I don't know," and an hour or so later he showed up amid his usual cheerful banter. "Why in the world are you still delivering babies?" she asked.

"Delivering babies is the only part of my job I enjoy any more," he replied. "It's a joyous, happy thing."

The woman didn't press—she didn't want any more answers like that, thank you—but she has been walking around with another question: What is our system doing that erodes that blithe spirit?

Part of the answer, perhaps, is that this happens to all general practitioners to some degree as they grow older and their patients grow older and are confronted by more and more increasingly serious illness and dysfunction.

Another part of it probably lies in other changes since the doctor began practice. When he started out, he didn't have the dark cloud of a malpractice suit constantly following him. He pursued his profession as close to selflessly as you can demand of a human in this age, and his public reward for

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it has been something only slightly more than a pile of burnt ashes.

What we've created is an obscene absurdity: a system that forces the doctor when you most need his full concentration to think of himself.

He has to make dozens of tests because of a one-in-a-million chance that someday a lawyer may be asking why he didn't perform one of them and make an easy diagnosis and save the patient years of torment.

Then we blame the costs of these tests—and their technology—on the avarice of the doctors. From there, instead of recognizing our own legal realities and the probability that we're paying today for tomorrow's miracles, we begin talking about socializing medicine or something else that will put these evil creatures into their proper place.

Sure, there are incompetent doctors, and there are those who've decided: "If I'm going to have the name, I may as well have the game." On the other hand, there are a lot of good people out there who are not getting credit for what they do and, in fact, are tarnished by the others.

A neurosurgeon, for example, who spent the better part of an hour—concentrating as if he were in surgery—lining up the apparatus on a patient's hospital bed. His fee: \$10.

And two surgeons who worked through an entire night, after a long day, to repair and preserve some part of a patient even though they knew that the fee—if any, ever—wouldn't be enough to pay a secretary to open the office the next day.

Doctors usually blame the press for the public criticism they suffer. That's like blaming a messenger for his bad news, or an illness on a doctor.

What is important is that we all—doctors emphatically included—stand back and try to figure out the questions about this art that's aided by science, so that we'll recognize the answers as they come by.

And to the sometimes-dispirited doctor, take heart. A couple of months ago the Iowa Poll reported that, despite all the nasty things said and written, you and your colleagues still rank right up there, in the esteem of the vast majority, with God and the Iowa Highway Patrol.

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PREVIEW OF IHSA HSP SUMMARY

A complete understanding of the framework and the process embodied within today's federal health planning mandates is more than can be expected of most Iowa physicians—except for those most directly involved.

Those who haven't the time to learn a lot should at least know a little about what's important. This discussion is dedicated to that proposition.

Among the requirements of the now flourishing health systems agencies (HSA's) is the compilation of health system plans (HSP's). Said HSP's have been prepared by each of the three HSA's which incorporate Iowa counties.

Most geographically conspicuous of these three HSA's is the Iowa Health Systems Agency. It is the announced intention of the 91-county IHSA to distribute in April a 40-page summary of its HSP. This distribution will be to the area's physicians, hospital administrators, long-term care facility administrators, county supervisors, mayors, etc.

It should be understood the HSP's for the three HSA's have been submitted and accepted for inclusion in what's to be called the State Health Plan. This is a required product of the State Health Coordinating Council (SHCC). Drafts of the SHCC Plan are to be widely circulated for public review and comment. This exercise is to occur in the coming months.

Meanwhile back to the IHSA HSP, this document is to be circulated in summary form as mentioned. It assesses (1) the health status of its population, and (2) the status of the health care delivery system. It then reportedly outlines "desired achievements for improving health and health care." It logically proceeds to list the actions and resources needed to achieve the achievements. Companion to and drawn from the HSP is another written instrument called the Annual Implementation Plan (AIP), which is a one-year "action" plan containing immediate priorities.

The first IHSA Health Systems Plan is said to concentrate on medical care and include the following among its intended pursuits:

- Elimination of Medicare/Medicaid policies that are barriers to extending primary care services in ambulatory settings.
- Promotion of organized hospital-based day surgery under certain circumstances.
- Encouragement of Rural Health Initiative and Health Underserved Rural Area projects.
 - Training of more physician extenders.
 - Provision of assistance to the kidney disease network.
- Establishment of systematic referral patterns for burn patients.
- Structuring of a task force of providers to devise standards for cardiac catheterizations and surgeries—"additional services only for unserved populations of 500,000 or more.
- Production of a network organization to insure the best use and management of radiation therapy.
 - Evaluation of CT scanners as to need, cost-effectiveness, etc.
- Consideration of capital investment for diagnostic and treatment services in short stay settings if the population served has reasonable access to existing services.
- Establishment in 1979 of targets for patient day use rates, admission rates and average lengths of stay.
- Creation of guidelines and criteria to be used in reviewing project proposals under 1122/Certificate of Need and federal funds reviews.
- Set by 1980 standards and criteria for reviewing the appropriateness of existing institutional health services.

In its formidable array of topics, the IHSA HSP also covers emergency medical services, services for the disabled and elderly, mental health services, environmental matters, health education, etc.

The Plan is filled with all kinds of "food for thought." Whether it'll satisfy hunger or cause indigestion is a matter for conjecture at this time.

IN THE PUBLIC INTEREST

Thanks to Physician Preceptors

The University of Iowa College of Medicine extends sincere appreciation and thanks to the 200 Iowa physicians who served last year (7/1/76 to 6/30/77) as preceptors for third- and fourth-year medical students and for students in the Physician's Assistant Program. These preceptorships are an important element in the College's out-

1976-77 PRECEPTORS FOR THIRD YEAR REQUIRED PRECEPTORSHIP

SERVED STUDENTS FROM CLASS OF 1978

Ames Louis Banitt, M.D. (1)*
Kennedy Fawcett, M.D. (1)
Anamosa John Bailey, M.D. (1)
Aaron Randolph, M.D. (1)
Armstrong C. V. Lindholm, M.D. (1)
Atlantic T. J. Payne, M.D. (1)
R. M. Needles, M.D. (1), John Weresh, M.D. (1)
Belle Plaine Clarence Douglas, M.D. (1)
Bettendorf William McCabe, M.D. (1)
Bloomfield Mark Pabst, M.D. (4)
Henry Perry, M.D. (1)
Boone John Murphy, M.D. (4)
John Wall, M.D. (1), J. R. Anderson, M.D. (1)
Burlington Harold Miller, M.D. (1)
JoEllen Hoth, M.D. (1)
Cedar Falls Philip Rohrdaugh, M.D. (3)
John Keiser, M.D. (1)
Cedar Rapids Mark Tyler, M.D. (4)
John P. Barthel, M.D. (1), Arthur E. Barnes, M.D. (3), Robert
L. Swaney, M.D. (1), Thomas Blanchard, M.D. (2), Percy Har-
ris, M.D. (1)
Center Point Kenneth Anderson, M.D. (1)
Centerville M. G. Parks, M.D. (1)
Charles City Werner Pelz, M.D. (1)
Clinton George York, M.D. (1)
Clinton
Barry Barudin, M.D. (2)
Barry Barudin, M.D. (2) Conrad

^{*} Indicates number of students.

reach effort. They permit students to observe the opportunities, and clinical problems, of a medical practice away from the academic setting represented by the University of Iowa Health Center.

Figure 1 shows community locations of physicians who served as preceptors for the three groups of students.

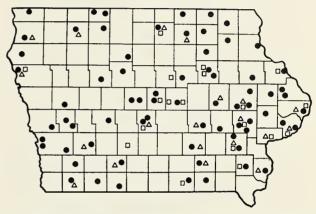


Figure 1. Third year required-preceptorships involved 114 physicians in 70 lowa communities and served 175 medical students (\bullet indicates locations). The fourth year elective-preceptorship involved 23 physicians in 21 communities and served 24 medical students (Δ identifies community). The Physician's Assistant preceptorship involved 63 physicians in 19 communities (indentifies community).

Des Moines Don C. Green, M.D. (2)
Charles Gutenkauf, M.D. (1), Carlton VanNatta, M.D. (1),
James Blessman, M.D. (1), John W. Olds, M.D. (1), Robert
Anderson, M.D. (1)
Dubuque John Chapman, M.D. (4)
D. K. Mozena, M.D. (1), Robert Melgaard, M.D. (1), Wil-
liam Dall, M.D. (1)
Eagle Grove Dale Harding, M.D. (1)
Elk Horn Gerald Larson, M.D. (1)
Emmetsburg
James L. Coffey, M.D. (1)
Estherville John L. Powers, M.D. (2)
Fort Dodge William C. Robb, M.D. (1)
Daniel Cole, M.D. (I)
Grinnell Bernie Wiltfang, M.D. (1)
Robert M. Carney, M.D. (1)
Guthrie Center Herbert Neff, M.D. (1)
Guttenberg Mike Downey, M.D. (3)
Harlan Joseph Spearing, M.D. (1)
Iowa City Anthony Colby, M.D. (12)
Elmer Groben, M.D. (1), Wayne Tegler, M.D. (1), Victor Ed-
wards, M.D. (1), Larry Rigler, M.D. (1)

Kalona Dwight Sattler, M.D. (3)	
	Ogden Enfred E. Linder, M.D. (3)
Kingsley Charles Hamm, M.D. (2)	Orange City Paul Vander Kooi, M.D. (1)
Lake City James Comstock, M.D. (1)	Oskaloosa Michael Collison, M.D. (1)
·	
Dale Christensen, M.D. (1)	Ottumwa
Lenox R. W. Boulden, M.D. (1)	Edward Ebinger, M.D. (1)
Lone Tree Keith F. Mills, M.D. (1)	Preston James Cahill, M.D. (1)
Larry Lawhorne, M.D. (1)	Red Oak Charles Driscoll, M.D. (6)
Manchester Mary Arends, M.D. (2)	Rock Rapids Fred Schultz, M.D. (1)
Manilla J. M. Hennessey, M.D. (2)	Saint Ansgar William E. Owen, M.D. (1)
Marengo B. Byrum, M.D. (1)	Shenandoah Kenneth Gee, M.D. (2)
Marshalltown L. O. Goodman, M.D. (2)	Sioux City Dale R. Wasmuth, M.D. (2)
Axel Lund, M.D. (1), T. J. Lund, M.D. (1)	Paul Fee, M.D. (1)
Mason City R. B. Trimble, M.D. (1)	Spencer George Fieselmann, M.D. (4)
Marie Alcorn, M.D. (1), George West, M.D. (1)	John E. Kelly, M.D. (1)
Maquoketa John Broman, M.D. (1)	Story City C. J. Chapple, M.D. (1)
Minden Max Olsen, M.D. (1)	Sumner Norman Elmer, M.D. (1)
Missouri Valley J. W. Barnes, M.D. (1)	Tipton Robert Kent, M.D. (1)
Mount Ayr Duane Mitchell, M.D. (1)	Washington G. J. Nemmers, M.D. (1)
Mount Pleasant Philip Couchman, M.D. (2)	Waterloo Ronald Roth, M.D. (2)
Mary Couchman, M.D. (1)	Robert E. Morrison, M.D. (1)
Mount Vernon	West Des Moines James Dolan, M.D. (1)
New Hampton James Carr, M.D. (1)	West Union Larry Boeke, M.D. (3)
New Hampion Sames Carl, M.D. (1)	West Official Larry Boeke, M.D. (3)
1976-77 PRECEPTORS FOR	Grinnell Raymond Light, M.D. (1)
FOURTH YEAR PRECEPTORSHIP	lowa City Nyle Kauffman, M.D. (1)
TOOKITT TEAK TREGETTORSTIII	Mason City Richard Munns, M.D. (1)
CERVED STUDENTS FROM OLASS OF 1077	W. R. Garrett, M.D. (1)
SERVED STUDENTS FROM CLASS OF 1977	. , ,
	Muscatine John Ellis, M.D. (1)
Atlantic Dwain Wilcox, M.D. (1)*	Orange City Paul Vander Kooi, M.D. (1)
Burlington George Gundrum, M.D. (1)	Oskaloosa Sidney Smith, M.D. (1)
Cedar Rapids John L. Banks, M.D. (1)	Ottumwa William Maxiner, M.D. (1)
Robert Swaney, M.D. (2)	Rockford Russell Barrett, M.D. (1)
Clinton Barry Barudin, M.D. (1)	Shenandoah Kenneth Gee, M.D. (1)
	Sioux City William Jackson, M.D. (1)
Creston Larry Goetz, M.D. (1)	
Davenport Erling Larson, M.D. (1)	Spencer Ed Kelley, M.D. (1)
Des Moines Stuart Olson, M.D. (1)	Spirit Lake D. F. Rodawig, Jr., M.D. (1)
	Vinton S. L. Anthony, M.D. (1)
* Indicates number of students.	Washington E. M. Ahart, M.D. (1)
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PROGRAM PRECEPTORS	University of Iowa Hospitals and Clinics: A. E. Cram, M.D.;
	University of Iowa Hospitals and Clinics: A. E. Cram, M.D.; D. A. Culp, M.D.; L. R. Hughes, M.D.: Peter Jochimsen, M.D.;
PROGRAM PRECEPTORS	University of Iowa Hospitals and Clinics: A. E. Cram, M.D.; D. A. Culp, M.D.; L. R. Hughes, M.D.: Peter Jochimsen, M.D.; W. C. Keettel, M.D.; D. Laube, M.D.; I. Ponseti, M.D. Veterans Administration Hospital: G. DiBona, M.D.; W. Fer-
PROGRAM PRECEPTORS Ames	University of Iowa Hospitals and Clinics: A. E. Cram, M.D.; D. A. Culp, M.D.; L. R. Hughes, M.D.: Peter Jochimsen, M.D.; W. C. Keettel, M.D.; D. Laube, M.D.; I. Ponseti, M.D. Veterans Administration Hospital: G. DiBona, M.D.; W. Ferguson, M.D.; J. Starling, M.D.; J. Thompson, M.D.
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State Department of Health

EMS CONFERENCE MAY 3-5

The Governor's Emergency Medical Services Conference III will occur May 3, 4 and 5 at the Hyatt House in Des Moines. The Conference is sponsored by the Emergency Medical Services Section of the Iowa State Department of Health.

The session will provide information on the current status of emergency medical service programming and systems development in Iowa. It will cover system requirements for the care of the critically ill and injured patient by patient category (burns, trauma, neonatal, cardiac, poisoning and behavioral). Technical component developments in Iowa relative to EMS communications, manpower and training will also be addressed. The Conference will review pending paramedic and ambulance funding legislation and consider other types of EMS legislation appropriate for Iowa.

A special feature will be the presentation of a satellite telecommunications demonstration illustrating transmittal of biomedical telemetry signals via satellite from a rural area of the state to a major hospital setting.

The Conference is intended for physicians, nurses, EMT-A's, ERT's, hospital administrators,

EMS project coordinators, EMS planners, EMS communications personnel, first responders and all others interested in EMS.

Advance registration may be made with payment of a \$30 fee to cover a luncheon and banquet. Checks should be made payable to the Iowa State Department of Health. Advance registrations must be received by April 28. A \$10 late registration charge will be made after that time. Further information regarding registration may be obtained from Mr. Chuck Janzen, EMS, State Department of Health, Lucas State Office Building, Des Moines, Iowa 50319. (515) 281-4965. Program information may be obtained from Mr. Robert J. Carson, EMS Director, State Department of Health. (515) 281-4962.

Organizations endorsing the Conference include the Governor's EMS Advisory Council, Central Iowa EMS Council, Inc., Northeast Iowa EMS Association, Inc., Southeast Iowa EMS Association, Inc., University of Iowa, Iowa Heart Association, Iowa Chapter, American College of Emergency Physicians, Iowa Ambulance and Rescue Association, Midlands EMS Council, West Central Iowa EMS Council, and Sioux Lakes EMS Association, Inc.

Approval for continuing education credits is being requested.

CONTINUING EDUCATION COURSES & CONFERENCES

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

April 4-6	lowa Medical Saciety Scientific Meeting	May 8-11	Cardialagy Taday
April 5	Ophthalmalagy Clinical Conference	May 11-13	lawa Eye Assaciation
April 7	Otalaryngalagy Clinical Canference	May 15-16	Medical and Surgical Diseases in Pregnancy
April 7-8	Great Plains Medical Student Oncalagy Can-	June 2	Otalaryngalogy Clinical Canference
	ference	June 4-9	Intensive Caurse in Pediatric Nutritian
April 27	Radiation Therapy Seminar	June 14-16	Saciety of Epidemialogic Research

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Morbidity Report for February, 1978

1978		February	1978	1977	Most February Cases
Amebiasis 27 27 5 Boone Chickenpox 877 1449 3026 Scattered Conjunctivitis 102 188 520 Scattered Encephalitis 1 1 — Cerro Gordo unsp. 1 2 — Dubuque Erythema infectiosum 5 6 21 Cerro Gordo GI viral infection 3909 6625 7403 Scattered Giardiasis 1 3 10 Buena Vista Hepatitis A 6 21 14 Scattered Giardiasis 1 3 10 Buena Vista Hepatitis A 6 21 14 Scattered Giardiasis 1 3 10 Scattered Giardiasis 1 3 10 Scattered Giardiasis 1 1 5 Scattered B 12 14 Scattered		1978	to	to	Reported From
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Encephalitis viral	Chickenpox	877	1449	3026	Scattered
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Laboratory Virus Diagnosis Without Specified Clinical Syndrome Cytomegalovirus—I, Eaton's Agent infection—I3, Herpes simplex—3, and Herpes zoster—3.

President's Page

By the time this is printed, my term as President of the Iowa Medical Society will be over, and Russell Gerard, M.D., of Waterloo, will have been installed as your new President. I wish him and all Society members the very best for the coming year.

During 1977 our membership reached its highest level (2,614 members) in recent history, suggesting the approval by Iowa doctors of the Society's efforts in such areas as professional liability insurance, legislative activity, continuing education through liaison with the Board of Medical Examiners, the production of medical manpower through cooperation with the College of Medicine, and in health planning through the involvement of various physicians in leadership capacities. These are just a few areas.



We have supported the College of Medicine and University Hospital expansion plans. They, in turn, presented a fine program for our annual scientific session last month.

We have renewed communication with the State Department of Health in pursuit of better care of nursing home patients. Our Committee on Medical Practice in Health Facilities and Homes has brought the nursing home organization, the Iowa Society of Osteopathic Physicians and Surgeons and the Department of Health together with others to discuss rules and regulations pertaining to nursing home care. We hope problem areas can be smoothed out and corrected where needed.

For me, it has been an eventful and interesting year. I am indebted to our fine Society staff for the great help and guidance and their support.

Thank you for the honor of allowing me to serve this past year.

IW fwanson M.D.

L. W. Swanson, M.D., President

IOWA Medical Miscellany

COST OF CARE FOLDER... More than 10,000 copies of the IMS folder, "Good Health: Important in Dollars and Sense," have been requested by member physicians. The patient education brochure contains information on staying healthy as well as reasons why the cost of care has increased. The folders are available from Society headquarters at a cost of \$5 per 100.

LEGISLATIVE WIND DOWN . . . Early election-year adjournment of the General Assembly appears likely with Iowa lawmakers expected to conclude their deliberations in early to mid-May. Health related measures have been relatively quiet in recent weeks. As this is prepared, the IMS-opposed and House-passed bill to allow optometrists to use topical diagnostic agents is awaiting attention by the Senate Judiciary Committee: Society efforts are being made to retain the bill in committee. A proposal having to do with emergency medical service is on the Senate calendar as this is prepared. The measure is acceptable to the IMS contingent on approval of an amendment giving the Board of Medical Examiners authority to certify the advanced emergency medical technician.

CONCERNING NEWBORNS... At its April 3 meeting, the IMS Executive Council considered a recommendation from the Committee on Maternal and Child Health asking the Society to affirm an AMA Statement on Parent and Newborn Interaction. Instead of endorsing the full AMA statement, the Executive Council adopted the following comment: "The Iowa Medical Society encourages medical staffs to continue to review hospital practices and, when necessary, to develop and formulate appropriate policies respecting all aspects of professional support for the birth and nurturing processes." Word of this action has been transmitted to the Iowa Hospital Association.

CHINA TRIP POSSIBLE . . . Investigation of a physician trip to the People's Republic of China has been authorized by the IMS Board of Trustees. The possible excursion to include interested Society members and their spouses would be in the fall of 1979.

COST CONTAINMENT . . . Participation in a voluntary Iowa Cost Containment Program was approved in April by the IMS Board of Trustees. Short-range goal of the program is to "address issues attendant to Iowa hospital costs through the utilization of a statewide committee that will provide a transitional forum until the Iowa Voluntary Rate Approval Program (RAP) is fully operational and prepared to assume this responsibility." The effort includes altering the Iowa Cost Effectiveness Committee with staffing to be provided by the IMS and Iowa Hospital Association. The membership of the Committee is expected to be broadened.

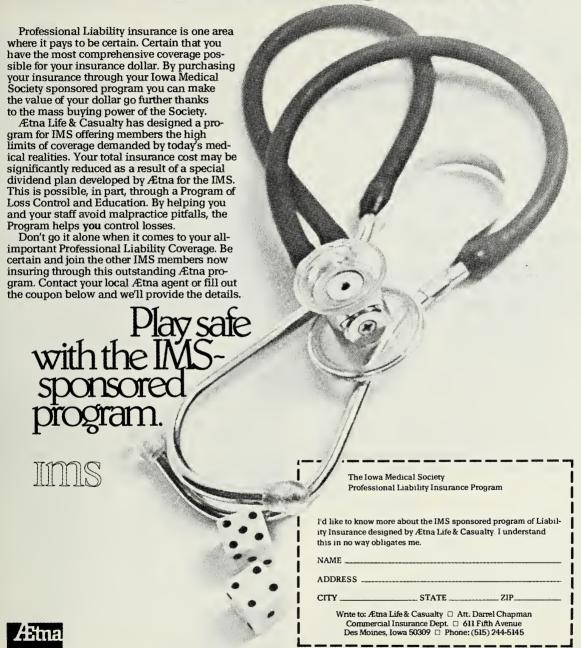
HANDICAPPED PARKING... Iowa physicians are encouraged by the IMS Board of Trustees to certify, without charge, on the required form that a current patient is sufficiently handicapped to qualify for a car sticker entitling him to specially reserved parking spaces.

PROGRAM IDEA... A slide presentation entitled "Goya: His Life, His Artistry and His Sickness" has been developed by Paul Kersten, M.D., Fort Dodge. Dr. Kersten would be happy to present the program before a medical or other interested group.

PRACTICE MANAGEMENT WORKSHOP...

Approximately 20 family practice residents participated in a workshop April 7-8 at IMS head-quarters. The event was under the auspices of Broadlawns and Iowa Lutheran hospitals in Des Moines. (Please turn to page 172)

Your malpractice insurance is no place to gamble



State Department of Health

COMMENTS ON COSTS

The following comments have been prepared by Cooper Parker, Director, Office for Health Planning and Development, Iowa State Department of Health.

"Availability of Care," "Accessibility of Care" and "Acceptability of Care" are phrases which have a familiar ring to those persons acquainted with the Health Planning and Resources Development Act of 1975. They are the ostensible linch-pins of the Act—its raison d'etre. However, knowledgeable persons are also just as acutely aware of another term, which is the real (albeit unspoken) intent of the legislation: "Cost Containment."

There is not much room for doubt that the Act, and the planning and regulating structure it establishes, will be judged primarily by the Congress on the basis to which it is successful in putting the brakes on rising health care costs. Nor is there much room for doubt that health care costs have risen far beyond what is represented by normal inflationary pressure. I, for one, am extremely skeptical about present mechanisms for determining with anything approaching precision just how much health is costing us. HEW tells us that last year we spent \$142 billion, as opposed to \$46 billion in 1967. However, before you quote that figure with confidence you should know that the same HEW is agonizing over a cost projection for universal, comprehensive National Health Insurance. It seems to me that if HEW is confident that health care costs in America last year amounted to \$142 billion, they would simply send that figure up to the Hill with a note saying "National Health Insurance will cost \$142 billion."

The fact of the matter is that until we have a reasonably sure way of determining costs, we will never be able to measure our effectiveness in cost containment. "Funds flow" (determining where the money for "health care" costs originates and

who disburses it) and "health accounts" (on what services, products or entities does it get spent) are cropping up increasingly in the lexicon of health planning and policy development. The Iowa State Department of Health, functioning in its role as the State Health Planning and Development Agency, is beginning to develop capacities in these activities. We are in contact with states (such as Rhode Island, Massachusetts and California) which have developed facility databased cost monitoring systems, and we will be developing the necessary administrative and legislative proposals to establish our system in Iowa.

States with whom we have been in contact emphasize the necessity for obtaining comprehensive aggregate data from providers of health care. My experience thus far with Iowa providers has been that they are generally willing to provide the kind of data necessary for planning and policy development. Unless they are willing also to provide reliable cost data, the future of voluntary cost containment measures is very uncertain. When I served as staff director to the Human Resources Committee of the Iowa House and Senate in 1976 and 1977, I experienced first hand the reluctance of some hospitals and physicians to entertain the notion of uniform cost reporting. I am hopeful these providers have had sufficient opportunity to reflect on uniform cost accounting/reporting and are now in a position to support them. In my estimation, the U. S. Congress has given clear evidence of its intention to follow-through on cost containment. In deciding to renew Public Law 93-641 for an additional three-year period, Congress is reaffirming its commitment. It remains for state government, providers of care, and consumer oriented planning and regulatory bodies to rise to the occasion.

Until we are able with confidence to determine health care costs in Iowa, then the effects of rate review (regulation?) Certificate of Need, uniform cost accounting/reporting, or any other cost conVol. LXVIII, No. 5

tainment tool will be unmeasurable. Common sense and our pocketbooks tell us that health costs are increasing. But we must be precise in our methodologies for determining how and by how much they are increasing. Continued ignorance on this score will be the burial ground of cost containment.

March 1978 Morbidity Report

	March	1978	1977	Mast Morch Coses
	1978	fa	ta	Reported From
Disease	Tatol	Dote	Date	These Counties
Amebiosis	29	56	12	Scattered
Brucellosis	1	1	1	Cloyton
Chickenpox	1131	2543	4460	Scattered
Conjunctivitis	122	310	914	Scottered
Encepholitis, virol	1	2	_	Cerro Gorda
Erythemo infectiasum	4	10	23	Scott, Webster,
				Winnebago
GI virol infection	3665	10290	11832	Scottered
Giardiasis	3	6	1 <i>7</i>	Black Howk,
				Pottawattamie
Hepotitis, infectious	16	37	20	Scattered
Hepotitis, serum	10	28	27	Scattered
Hopatitis, unspecified	5	16	7	Fayette, Guthrie,
				Johnson, Lee
Histoplosmosis	1	3	_	Polk
Impetigo	115	262	222	Scottered
Infectious mono.	141	295	372	Scottered
Influenzoe, lob. con.	34	168	45	Scottered
Influenzoe-like illness	11513	32849	34143	Scottered
Meningitis, unsp.	2	5	2	Scott
Mumps	47	67	912	Scottered
Pediculosis	46	140	68	Scottered
Pertussis	1	2	_	Woodbury
Pinworms	2	5	14	Linn, Polk
Pneumonio	381	814	327	Scottered
Robies in onimols	8	37	18	Scottered
Rheumotic fever	6	11	16	Lee, Webster
Ringworm, body	31	66	119	Scottered
Rubello	7	14	85	Block Hawk, John-
				son, Linn, Von
				Buren
Scobies	156	358	1977	Scottered
Streptococcol inf.	1499	3471	5541	Scottered
Tuberculosis				
total ill	15	28	24	Scottered
boc. pos.	10	20	20	Scottered
Gonorrhea	456	1176	1345	Scottered
P. & S. Syphilis	10	10	N/A	Scattered
Syphilis (other)	14	47	90	Scattered

Labarotory Virus Diognosis Without Specified Clinical Syndrome Cytomegolovirus—4, Eoton's Agent infection—15, Herpes simplex—9, and Herpes zoster—2.

N/A-Information not available.

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A Comprehensive Insurance Program Is Important!

MECHANISM TO EXAMINE MEDICAL COSTS

As PART of its effort to deal with escalating health care costs, the medical profession (as represented by the American Medical Association) created two years ago an independent National Commission on the Cost of Medical Care. The Commission's 27 members came from various segments of the economy, e.g., health care providers, business, labor, government, etc.

The Commission produced a three-volume report near the end of 1977. In the report appear 48 recommendations on reducing the cost of care. Some are consistent with previous suggestions of the medical profession. Some run contrary to present AMA policy.

It is important to understand this report of the National Commission, while requested by the medical profession, has not yet been acted upon by its principal policy-making body. It was received by the AMA late in 1977 and has been

under study in many states since then.

Iowa representatives to the AMA House of Delegates will join counterparts from around the country to discuss, debate and act on these recommendations when the House meets in St. Louis in June. Preliminary to this, for the benefit of its delegates (three delegates and three alternates), the Iowa Medical Society held a special hearing on the Commission report during its House of Delegates session early this month.

In its summary, the National Commission discusses two alternative approaches to the issue of cost containment: 1) to strengthen consumer and provider price consciousness, and 2) to expand regulatory measures in an effort to exert wide-

spread control over costs.

"Strengthening price consciousness," the Commission summary says, "requires substantial restructuring of the incentives facing consumers and providers of health care. Some forms of regulation, especially public-utility type regulation, tend to distort incentives for price consciousness. However, there is a useful role for some specific regulatory measures such as those designed to provide information to consumers and providers. A process of strengthening price consciousness

combined with complementary regulatory schemes will lead, in terms of cost, quality, and access, to an optimal program of health care delivery."

The 48 recommendations in the report are divided among the following subject headings: Strengthening Price Consciousness, Private Sector Cost Containment Initiatives, Guidelines for Regulation, Cost Containment Measures Within Medical Practice, Supply and Distribution of Health Care Providers, Research Guidelines, and Consumer and Patient Education.

In dwelling on price consciousness, which is interpreted to mean broad and thorough knowledge of health care's monetary or economic elements, the Commission summary declares, "it is obvious that no market, especially one as complex as health care delivery, can operate completely free of regulation. Further, some mechanisms must be put in place to assure that no group of consumers is denied quality care due to inability to pay. A strategy combining elements of price consciousness and some regulation would remove many of the problems inherent in strict publicutility regulation. . . . The greatest possible number of decisions about health care should remain with the individual consumer and provider as they best know what is required in each case."

The emphasis of the Commission is on the need for consumer awareness of prices. It is pointed out that this will cause insurers and health plans to be more competitive and offer more incentive to hold down prices to attract participation.

In the realm of economy, the Commission supports incentives to stimulate cost-effective health care. It advocates plans based primarily on private sector initiatives which encourage organizations of providers and third-party payers to become more innovative in implementing programs which include economic incentives without jeopardizing patient care.

This capsule comment affords only an indication of the ambitious work done by the Commission. Hopefully, it will stimulate constructive de-

bate throughout the profession.

IN THE PUBLIC INTEREST



Deceleration Injuries Of the Great Vessels

JAMES DOLNEY, Medical Student,
JAMES D. GERMAN, D.O., ROBERT H. ZEFF, M.D.,
STEVEN J. PHILLIPS, M.D., and
CHAMNAHN KONGTAHWORN, M.D.

Des Moines, Iowa

NONPENETRATING deceleration injuries of the chest immediately draw the attention of the surgeon to the possibility of vascular disruption involving the great vessels, the most common site being the aortic arch just distal to the left subclavian artery (80-85 percent⁶). However, it must be recognized approximately one-quarter of these vascular injuries involve the innominate, the carotids, and the subclavians as isolated lesions or in association with an aortic rupture.

Two cases of great vessel injury secondary to blunt trauma are discussed here. They represent the range of these lesions from the most common type as described above (Case I) to the most unusual (Case II), a disruption of the right subclavian at its take-off from the innominate artery.

CASE REPORT I

A 29-year-old female was admitted to the Emergency Department of Mercy Hospital, Des

Dr. German is director of the Emergency Department at Mercy Hospital in Des Moines. Drs. Zeff, Phillips and Kongtahworn are affiliated with Cardiac Surgery Associates, P.C., Des Moines. Mr. Dolney was a clinical clerk from the College of Osteopathic Medicine and Surgery.

Discussed here are two cases of great vessel injury secondary to blunt trauma. One is common, one is unusual. Mortality rates will decrease where there is acute awareness of vessel trauma patterns.

Moines, Iowa after being involved in a head-on two-car collision. She was awake and alert and able to answer questions concerning the accident and her general history. Her respiratory rate was 16, blood pressure 150/70 and her rhythm was regular at a rate of 138. She was in obvious distress. There were abrasions, contusions, and ecchymosis over the head, chest and abdomen. She had shortening and external rotation of the right lower extremity. Her lungs were clear to auscultation and percussion although there was some crepitation on the left side of the chest. The abdomen was tender to palpation and no bowel sounds were present. All pulses were equal and strong bilaterally. There was gross neurological deficit.

The usual resuscitative and diagnostic procedures were carried out in the first few minutes after admission. In the process of obtaining a chest x-ray it was recognized a pneumothorax had developed on the left. A chest tube was inserted through the second left intercostal space and 200-300 cc of bright red blood was immediately evacuated. At the same time there was noted to be a 40 mm difference in blood pressure between the left and right arm; right greater than left. Pedal

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF MAY 1978.



Figure 1. Irregularity distal to take off of right subclavian.

pulses were also noted to be absent at this time. The patient arrested within seconds of the observations.

Total elapsed time between admission and the arrest was less than 10 minutes. An emergency thoracotomy and laparotomy were done revealing a rupture of the thoracic aorta just distal to the left subclavian artery, as well as a laceration of the liver. The widening of the mediastinum consistent with great vessel rupture was evident on the chest film taken seconds before the arrest. Despite continued resuscitative efforts and emergency surgery the patient developed refractory acidosis and was pronounced dead less than 3 hours after admission. The autopsy revealed no other significant pathological findings.

CASE REPORT II

A 16-year old boy involved in a high speed automobile collision was brought to the emergency room, dusky, with shallow respirations and contusions over the right anterior chest. He had equal pulses in all extremities and blood pressure of 100/70. Because of increasing cyanosis the patient was intubated and maintained on a respirator. Chest x-ray revealed a questionable widening of the mediastinum. The mediastinal widening was unequivocal in a second x-ray an hour later. The patient was sent for angiography while the operating room was prepared. The angiogram (Figure I) revealed a marked irregularity

in the area of the subclavian artery just distal to its take-off from the innominate. He was taken immediately to surgery and explored through a median sternotomy with an extension of the incision to the right neck. 4 A large hematoma was noted to be involving the area of the proximal subclavian. A vascular clamp was placed on the innominate across the origin of the subclavian while the distal subclavian was occluded. The wound itself was a one-centimeter defect on the anterior surface of the subclavian approximately 6 cm from the origin of the vessel. When the vessel was opened it was observed that the intima was torn back close to the origin of the subclavian. The extensive intimal injury eliminated the possibility of end to end anastomosis. A segment of saphenous vein was removed from the groin and interposed between the cut ends of the debrided vessel. The wound was closed in the usual fashion. The patient made an uneventful recovery and was discharged from the hospital in 7 days.

DISCUSSION

Twenty-five percent of deceleration type injuries of the thorax involve the great vessels rather than the aorta itself. It is imperative the surgeon maintain a high index of suspicion toward such an injury even after angiographic visualization of the aorta at its most common sites of disruption.8 Angiographic visualization of the great vessels³ as well as the aorta should be part of the evaluation in patients suspected of such an injury. In addition, it must be kept in mind that these vascular lesions may be multiple. 3 Disruption of the aorta does not rule out an additional injury to either innominate, subclavian, or carotid arteries. The injury of a great vessel does not rule out other injuries as evidenced in Case I where the liver laceration might have resulted in a fatal outcome even if the aortic injury had been manageable. The mechanism for these different vascular injuries is variable. The traditional deceleration injury distal to the left subclavian results from movement of the mobile distal against its fixed point on the ligamentum arteriosum. Injuries to the origin of the innominate have their own peculiar mechanisms and have been reported more frequently in the last five years. According to Binet et al² a hyperextension of the spine with the head rotated to one side or the other places the opposite carotid under tension in a longitudinal axis. The resulting tearing force, origin of the carotid from the aortic arch which can result in an avulsion of the innominate from the aorta.

The right subclavian injury has the most unusual of postulated mechanisms. In a young patient, this injury involves the head of the flexible clavicle, which smashes against the first rib to stretch and tear the interposed subclavian artery. The injury can be an isolated contusion, laceration, or an intimal tear.⁷

In both reported cases, it is obvious no security can be gained by the presence of strong and equal pulses. It is essential these patients be rapidly and efficiently diagnosed and treated, if the salvage rate is to be increased. Approximately 75-80 percent of the patients die immediately at the accident scene and another 10-12 percent die within the first few hours (90 percent die within 6-8 hours of injury). The survival of the second group depends largely on the efficiency of their workups. The associated injuries, especially head injuries, present additional problems. In our experience, even the neurologically unstable patient can undergo safe and rapid repair of a vascular injury with the close cooperation of the neurologist and neurosurgeon. In cases where rapid deterioration occurs before the diagnostic workup can be completed, a blind thoracotomy may be life saving. The right subclavian injury may present on x-ray pattern as an opacity in the area of the right upper lobe which can be confused with right upper lobe atelectasis. Frequently these patients will

undergo bronchoscopy rather than angiography. This pattern of mediastinal widening with opacity in the right upper lobe, although sometimes seen in other aortic and great vessel injuries, is most commonly caused by disruption of the right subclavian artery and should raise immediate suspicions. In any of these injuries, the cardiopulmonary bypass pump should be available and ready for use. Shed blood can easily be returned to the patient and be supported until full control is attained.

Mortality rates should be significantly decreased if physicians and well-equipped medical centers are acutely aware of the various patterns of vessel trauma that cause widening mediastinum in the acutely injured patient.

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JANUARY FOLLOW-UP

This "Letter to the Editor" has been received from Thomas R. Viner, M.D., Leon, Iowa.

I was interested in the article in the January 1978 IMS JOURNAL on Menetrier's Disease. The authors (Woo Young You, M.D., James P. Gould, M.D., and Albert R. Clemens, M.D., Des Moines) report a case similar to one diagnosed locally and referred for surgical treatment.

An 18-year-old female was admitted with epigastric distress, nausea and vomiting of all ingested foods for three weeks. Her normal weight was 120 lbs. There was edema of face and 4+ pitting edema of her extremities. The weight at admission was 136½ lbs.

Her positive laboratory findings were: (1) Pro-

tein analysis 3 gm, albumin 1.57, abnormal electrophoresis, and AG ratio 1; (2) Calcium level 7.4 and phosphorus 4.7; (3) Constant leukocytosis of 14,000 to 17,000.

The x-ray of the stomach was reported as an acute gastritis to hypertrophic glandular gastritis. In view of the stomach x-ray and severe hypoproteinemia a diagnosis of Menetrier's disease was made. The patient was referred to Mercy Hospital in Des Moines for definitive treatment.

The reason for commenting on this interesting case is that local physicians are challenged frequently by these so-called unusual diseases or conditions. The fact that community hospitals see and diagnose these problems should be acknowledged.

Post-Mastectomy Reconstruction and Treatment of the Contralateral Breast: A Case Report

RICHARD H. McSHANE, M.D. Albany, New York

Breast reconstruction following mastectomy for carcinoma is being performed more frequently. Though several thousand women have had reconstructions performed using a variety of techniques, this continues to represent less than five per cent of the 90,000 women per year in the United States who are diagnosed with this disease. Both aesthetic and oncologic considerations are involved in the design and execution of these reconstructive procedures. Similarly the aesthetic management of the opposite breast involves important oncologic considerations.

Most of the stated concern about breast reconstruction involves the risk of local recurrence and how its detection will be influenced by the reconstructive procedure. However, evaluation of recurrent carcinoma at The University of Iowa reveals local recurrence to be a factor in less than 5 per cent of patients with carcinoma of the breast. When local recurrence does occur it is usually an indicator of systemic disease. Less than 1 per cent of the selected patients undergoing mastectomy and subsequent reconstruction will have an isolated local recurrence of their carcinoma. In addition, a good, soft reconstruction will permit clinical examination and diagnosis of recurrent disease.

The contralateral breast, however, has a 15 per cent chance of developing carcinoma with intraductal carcinoma and a 40 to 50 per cent chance with lobular carcinoma.¹⁻³ In both reconstructed and unreconstructed patients, careful attention

If the surgeon is to perform reconstruction following radical mastectomy, he or she must deal with oncologic as well as aesthetic considerations in the opposite breast. An aesthetic technique for subcutaneous mastectomy and immediate reconstruction with a cushioned dermal flap and mastopexy is demonstrated. No carcinoma was noted in the contralateral breast. The treatment of the opposite breast, though separate from the carcinomatous breast, is intimately related to its pathology. Similar host and risk factors are present.

should be directed to the remaining breast. This remaining breast is frequently undesirable or impossible to reproduce in the reconstruction. Though absolute breast symmetry seldom exists in nature, a balancing procedure is usually desirable. The risk of carcinoma demands special considerations. This case report will present these special considerations and show how they relate to the patient.

CASE REPORT

On March 12, 1975, a 38-year-old, married, white, female housewife was seen in the Surgery Outpatient Clinic with an aching, burning pain of 3-4 days duration in her left breast.

A mass in her right breast had been detected several months prior to this clinic visit. Her gynecologist noted that this mass changed with her menses. It was presumed to be fibrocystic disease.

She gave no history of nipple discharge. There was no familial history of breast disease and no history of malignancy in other areas. She had had four pregnancies with three normal deliveries and one spontaneous abortion. Her last menstrual period was on February 27, 1975. She had a sister with fibrocystic disease of the breast and

Dr. McShane is director and head of the Division of Plastic Surgery, Albany Medical College of Union University, Albany, New York. He was formerly director of the Plastic Surgery Service, Department of Surgery, University of Iowa College of Medicine.

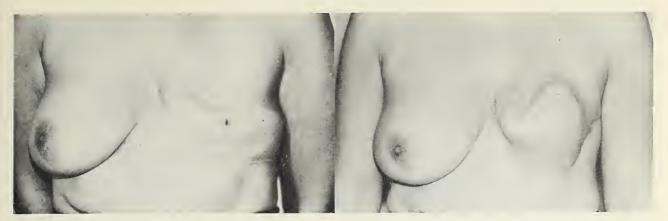


Figure 1. The patient prior to reconstruction with a one-stage, medially-based, thoraco-abdominal flap and immediately placed implant (left) and the result 3 weeks following reconstruction

a maternal grandmother who died of carcinoma of undetermined origin or location.

On physical examination, a 2 x 2.5 cm mass was noted in the upper outer quadrant of the left breast. Needle aspiration was attempted and no fluid was obtained. Both axillae were negative on examination.

Xeroradiogram was felt to show only fibrocystic disease of the breasts.

On March 24, 1975, the patient underwent biopsy of what was thought to be a benign breast mass. A 4 x 4 cm specimen from the left breast was removed revealing an invasive intraductal carcinoma. A left, modified radical mastectomy was performed through a transverse incision. A transvaginal tubal ligation was performed under the same anesthesia.

Permanent pathological sections confirmed an infiltrating ductal carcinoma of the left breast with no involvement of 21 axillary and apical lymph nodes.

The patient had a benign postoperative course and was placed on an adjuvant chemotherapy program with occasional leukopenia. The patient was upset by the unexpected loss of her left breast and actively sought reconstructive relief from her post-mastectomy deformity.

On examination in the Plastic Surgery Clinic, a well healed incision was noted (Figure 1, left). A moderate amount of tissue was present with which to reconstruct the absent breast. The right breast was pendulous with a diffuse ropey character in the breast parenchyma. Both axillae continued to be negative. A xeromammogram of the right breast revealed fibrocystic disease with no evidence of carcinoma.

On November 18, 1975, a left breast reconstruc-

(right). The use of a flap avoids the globular appearance of a one-stage reconstruction with an implant alone. The opposite breast is pendulous and asymmetrical.

tion was performed using a local interpolation flap with an immediately placed, 270 cc, low-profile, round prosthesis. After a benign postoperative course she was discharged Nov. 26, 1975.

On December 28, 1975, she was admitted for cosmetic reduction of her pendulous right breast (Figure 1, right). A subcutaneous mastectomy was performed through dermal mastopexy incisions (Figure 2), and a 165 cc, low-profile, round implant was immediately placed. Gross examination of the breast tissue revealed small, blue dome cysts. The pathological report diagnosed mammary dysplasia. She had a benign postoperative course and was discharged Jan. 8, 1976.

She has continued to do well following her reconstructive surgery (Figure 3). Her adjuvant chemotherapy was resumed. She has repeatedly declined nipple areola reconstruction on the left breast.

COMMENT

The aesthetic surgeon might approach this pendulous right breast (Figure 1, right) with a standard reduction mammoplasty. With carcinoma in the opposite breast, however, it seemed unwise to perform a mammoplasty which would retain potentially cancerous tissue. The breast parenchyma would be placed in new locations which would decrease manual and radiologic diagnostic accuracy.

The major factors which placed this woman in a high-risk category for her original carcinoma can be reviewed and applied to the remaining breast. The risk of developing cancer in the second breast, after the first has been removed for cancer, is five times greater than the risk of breast cancer in the general population.⁴

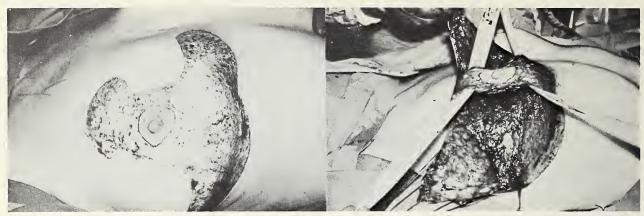


Figure 2. Left, The deepithelialized dermal flap and the design of the dermal mastopexy. All of the dermal flap is preserved unlike many reduction mammoplasty procedures which discard skin and dermis. 11 Right, The incisions outlining the dermal

For 10 years Urban has followed a series of patients with minimal carcinoma (lesions less than 1 cm in diameter).⁵ His series of 161 patients shows a five-year survival rate of 98 per cent and a 10-year survival rate of 95 per cent. With a slightly larger lesion with negative nodes, this patient should have a 10-year survival rate between 90 and 95 per cent. With adequate surgical resection of the original carcinoma, as this patient had, her prognosis for a long life makes her an excellent candidate for reconstruction. This unfortunately is a double-edged sword, because patients with a good expectation of long term survival have an even higher risk of developing cancer in the second breast. Though the absolute incidence of carcinoma in the second breast in-

creases with advancing age, the number of pa-

tients developing breast carcinoma at a given age

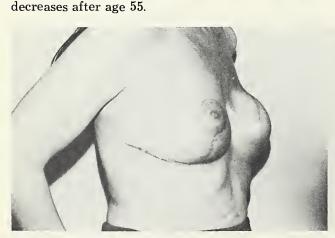


Figure 3. Left and Right, Show the result I year following reconstruction. The left breast reconstruction utilizes an asymmetric Z-plasty approach with deepithelialization of tip and margins of the larger reconstruction flap. The donor area is closed primarily

flap provide easy access for the subcutaneous mastectomy. This generous vertical dermal flap will provide a substantial cushion for the inframammary crease closure as well as the vertical limb of the dermal mastopexy.

Hereditary forms of breast cancer are more frequent than is usually suspected. In order of increasing significance, an aunt, mother, or sister with carcinoma of the breast will increase the likelihood of carcinoma in the contralateral breast. If the disease appears in one or more of these relatives before menopause, the risk is even greater. Patients whose relatives have bilateral cancers have a nine times greater risk of developing bilateral cancer themselves, than do relatives having unilateral involvement.

Parity reduces the risk of carcinoma in a remaining breast. The risk becomes smaller as the number of children increases, especially when the mother is below the age of 25.

Malignancies in other areas increase the likelihood of carcinoma in a second breast. Endometrial carcinoma is associated with a 30 per cent incidence of carcinoma of the breast.⁷



with a scar which falls beneath a halter. All reconstructive scars should fall beneath a relatively small two-piece bathing suit and should fade within three years after the surgery is completed.

Viral factors, immunologic aspects, genetic factors, radiation exposure, endocrine function, high dietary fat, hypothyroidism, chemical agents-all influence the possibility of carcinoma of the breast. Similarly, they influence the possibility of carcinoma in the remaining breast. None of these influences was acting abnormally on our patient.

This patient did, however, have mild fibrocystic disease in the remaining breast. Davis et al in a review of the world literature found the presence of fibrocystic disease of the breast increased the risk of developing cancer by 2.64 times.8 The two types of fibrocystic disease that appear to play a major role in the development of breast cancer are duct epithelial hyperplasia with atypia and apocrine metaplasia with atypia.4,9 Examination of the specimens from both sides revealed no evidence of these histopathologic entities.

Despite a negative xeromammogram, it appeared to us that this patient had a 15 per cent chance of developing carcinoma in her remaining breast. The efficacy of subcutaneous mastectomy with fibrocystic disease present has been supported by Penisi in a large collected series of 4,000 subcutaneous mastectomies in which the incidence of subsequent carcinoma was less than 1 per cent, well below the expected levels. 10 The subcutaneous mastectomy was carried out with this above reasoning.

Though we did insert the implant during the subcutaneous mastectomy and dermal mastopexy, it is only done in selected cases. A policy of immediate implant insertion in all subcutaneous mastectomies leads to inadequate resections of breast tissue. Wound complications are more frequent and contribute to a higher incidence of capsular contracture.

By saving all of the dermis within the standard mastopexy pattern, a larger cushion was provided between the implant and the skin closure. The wide, open incisions in this case permitted gentle handling without undue tension or retraction of skin or flap edges. This in turn aided immediate placement of the smaller 165 cc prosthesis.

The one-stage reconstructive procedures have minimized hospitalization and provided an aesthetic alternative to the constant use of an external prosthesis. The patients are uniformly pleased with creation of the new breast mound and appreciate the preventive measures taken against possible carcinoma in the remaining breast.

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A DIFFERENT DRUG BOOK

"It is humanly possible that you can try almost any drug and quit whenever you want to, or when you think it's hurting you. Quit 'when you need glasses.'"

"It is also possible that once you start in with almost any drug, you won't be able to quit, no matter how much you want to or need to. And, you're fated to become dependent on, or addicted to, some drug. To go 'blind.'"

These excerpts are from the small different drug book by Henry Gregor Felsen of West Des Moines, Iowa. The book is dedicated "to the kid

Felsen, Henry Gregor, Can You Do It Until You Need Glasses? New York, Dodd, Meade & Company, 1977 (130 pages; \$5.95). who will read this book and not believe one word of it . . . vet?" The teen-age drug scene is approached and explored in a personal individual manner. The plea is made for help to others, as well as for self. The author's last statement emphasizes this by pointing out that drugs are doing hurtful things to people the reader may know and love. "Those people need something done to protect their lives and futures. Don't just stand there!"

This little book, written in the language of the teenager (not always correct in grammar and sentence structure) should serve as a guide to the young drug user. It is hoped it can be read by all teenagers. It is a good book for physicians to recommend.

Management of Neurogenic Bladder With Intermittent Catheterization In Spinal Cord Injuries

W. H. VERDUYN, M.D. Reinbeck, Iowa

Use of intermittent catheterization has been made with spinal injuries at Schoitz Hospital in Waterloo since 1974. Goal of this approach is to have the patient catheter free with sterile urine, plus an anatomically intact urinary tract with a balanced bladder.

IT IS ESSENTIAL that correct urological care of spinal cord injuries be provided from the very onset. A brief historical review shows World War I was a time of experimentation and therapeutic failure in this area. This period is described by Frankel with the suggestion that there was little significant progress in urological care of spinal cord-injured people between World War I and World War II. In World War II the several military branches used different treatment approaches. The Army used the suprapubic cystostomy; the Navy used the indwelling catheter. The Army utilized the indwelling catheter during the Korean War. In the last years of the Viet Nam conflict, intermittent catheterization was started.

Guttman and Frankel, at the National Spinal Injury Center, Stoke-Mandeville in England, established intermittent catheterization of the bladder. Others who have worked in the field are Hardy (1966), Bors (1967), Rossier (1971), Comarr (1972) and Vivian (1974). All have shown intermittent catheterization as the best management ap-

Dr. Verduyn practices at the Rural Family Practice Clinic in Reinbeck, Iowa. He completed a year's fellowship in spinal cord injuries in 1977 at Craig Hospital in Englewood, Colorado.

proach for spinal cord-injured people. Most patients so managed can be catheter free with sterile urine.

In follow-up studies by Frankel and Guttman (1965) the urine of 125 out of 150 males remained sterile after three years with the initial use of intermittent catheterization. There were 87 males infected, and 18 of these became and remained sterile with intermittent catheterization. In 1967 even better results were observed by Walsh. He found after 12 months in nearly three-fourths of the males the urine remained sterile, and after 7 months the same was true in two-thirds of the females. The 1966 experience of Guttman and Frankel, who have used intermittent catheterization on 476 patients over an 11year period, and of Walsh, in 1967, strongly suggest infection of the urine is responsible for complications rather than intravesical pressure.

SCHOITZ EXPERIENCE

In October, 1974, the nursing staff at Schoitz Hospital in Waterloo, Iowa began to use intermittent catheterization. We established a strict protocol. We catheterized at least every 6 hours with a double scrub technique. The patient first was washed and draped and after the scrub the draping was discarded. The nursing staff then put on new sterile gloves, used new draping, and catheterized with a #16 catheter, Neosporin ointment was used as lubricant. After the bladder was emptied, 15 cc of Betadine solution was used for irrigation, and some was left in the bladder. A urinalysis was done routinely once a week. A colony count was done initially on every specimen. If it remained sterile it was done once a day. Culture and sensitivity was performed when indicated. We maintain this protocol now.

(Please turn to page 171)

(Continued from page 170)

If the patient produces amounts of urine over 800 cc in the bladder during the 6 hour period, we will catheterize more often. If the patient indicates his bladder is full, he will be catheterized more often. If necessary we will limit fluid intake to 1500 cc/24 hours. Initially, during the first 3 or 4 days to a week, it may be necessary to leave a Foley catheter in place. There is often a tremendous fluid shift in people after spinal cord injury, and they will pass a high volume of urine in the first few days. For various reasons the extended use of catheterization is unwise. Obviously, if injury to the urinary tract has occurred one must know the status of the urinary tract and catheter drainage is necessary.

The only medications used are Mandelamine, 1 gm qid and Vitamin C, 1 gm qid, or Ammonium Chloride 1-1½ gm qid. The pH is checked on each urine specimen and should be under 6. Antibiotics are only used if the colony count is over 100,000 per cc. This will often correlate with an increase of WBC in the sediment. The culture and sensitivity will facilitate treatment with the appropriate antibiotics.

Once the patient is up, he is taught self-

catheterization because he may have to catheterize himself at home.

According to Frankel, in THE UROLOGICAL CLINICS OF NORTH AMERICA, in complete and incomplete cervical injury, spontaneous micturition will occur anywhere from 3 to 4 weeks; in T-1 to T-5 injuries, 3.5 to 7 weeks; in T-6 and T-12 injuries, 3.25 to 6.5 weeks. Below T-12 there is a wide range of 2.3 to 5.3 weeks before micturition will occur.

The urological workup is done as soon as the patient is off the turning frame. At that time we do an IVP and cystogram, cystoscopy, cystometrics and ice-water test. Cystoscopy is essential. These people are flat on the turning frame for at least 6 weeks. Calcium is moved out of the bones, it is excreted in the urine and stones can form. We have found stones in several of our old spinal cord patients who had not been followed by their original institution.

Urinary tract infections produce a greater mortality factor. Intermittent catheterization is continued up to 3 months or until the residual urine is less than 20% of the bladder capacity for upper motor neuron bladder or 10% for the lower motor neuron bladder. Urecholine, up to 40 or 50

TABLE I

Yr.	Age	Sex	Injury Level	Int . Cath . Started	Medicatian	Infectian	Antiabiatic	Balanced Bladder	Residual	External Callectar
1976	19	м	Camplete C-5	2 days	Mandelamine Vitamin C			4½ weeks	50 ccs.	+
1975	19	М	Camplete C-6	10 wks.	Mandelamine Vitamin C	Pseudamanas	Gentamicin 10 days	16 weeks	less 100 ccs.	+
1975	36	М	Incamplete C-8	18 yrs.	Mandelamine Vitamin C	Strept Staph Cali	Gentamicin 10 days	2 weeks	less 100 ccs.	+
1974	24	М	Camplete T-5	3 days	Urechaline Mandelamine Vitamin C	Candida	·	8½ weeks	less 100 ccs.	+
1975	20	М	Camplete L-2	1 day	Mandelamine Ammanium Chlaride	Pseudamanas Candida	Gentamicin 10 days	13 weeks	35 ccs.	_
1975	35	М	Camplete L-3	4 days	Urechaline Mandelamine Vitamin C			12 weeks	less 100 ccs.	+
1975	20	M	Camplete L-3	5 days	Mandelamine Vitamin C	Cali x 2	Ampicillin 10 days	Tran	sferred ta Craig Ho	ıspital
1976	18	М	Incamplete L-4	10 days	Mandelamine Vitamin C	Pseudamanas Candida	Tabramycin Gentamicin 10 days	10 weeks	15 ccs.	_
1976	15	М	Camplete T-10	1 day	Sulfa Mandelamine Vitamin C		·	11 weeks	10 ccs.	_

mgs qid, can be used to increase the tension of the bladder and help empty it. Dibenzyline 10 mgm will relax the sphincter.

The goal of intermittent catheterization is to have the patient catheter free with sterile urine, and have an anatomically intact urinary tract with a balanced bladder. The anatomically intact urinary tract is particularly important.

Nine cases are highlighted in the accompanying table.

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IOWA MEDICAL MISCELLANY

(Continued from page 158)

RADIATION SAFETY BILL PASSES... The Iowa General Assembly has passed legislation providing the state with a reasonable system of safeguards for x-ray equipment and standards for non-medical operators. IMS Legislative Chairman Donald C. Young, M.D., has been a source of expertise for legislators during the consideration.

MEDICAID RULING CHANGED... A recent requirement that laboratories file separate claims for Medicaid services they provide is being rescinded by the State Department of Social Services. Earlier and long-standing procedures allowed attending physicians to include these charges on their Medicaid claims with reimbursement to laboratories as appropriate. The DSS accepted the IMS explanation that the former approach is more cost effective and steps are in process to revert to it.

AIR POLLUTION... A program on air pollution and patient management will be presented May 25/26 at the O'Hare Marriott Hotel in Chicago under auspices of the American Medical Association and the Illinois State Medical Society. Participants will provide information to help in diagnosing and evaluating the effects upon the individual of air pollution from community and home sources. Nine Category I credits are available.

NURSING HOMES . . . IMS representatives participated May 4 in a meeting of the State Intermediate Care Facilities Advisory Committee. Implementation of nursing home rules by the State Department of Health was the principal discussion item. J. F. Veverka, M.D., chairman, IMS Committee on Medical Practice in Health Facilities and Homes, was the Society's principal spokesman.

MEMBERSHIP AHEAD... Membership in the Iowa Medical Society as of the most recent report (3/31) stood at 2,213 physicians; this figure represents an increase of 186 over the same date one year ago. Iowa physicians belonging to the AMA were 61 ahead of the 1977 pace with 1,881 having so affiliated.

RADIUM DISPOSAL... The Iowa Department of Environmental Quality has been advised the Environmental Protection Agency Radium Disposal Project will conclude this year. Any physician who may have medical radium needles requiring disposal should contact Katherine Royal, Iowa Department of Environmental Quality, Henry A. Wallace Building, 900 East Grand, Des Moines.

VRA PROGRAM... By the end of March 49 per cent of eligible Iowa hospitals had signed letters of intent to participate in the Voluntary Rate Approval program; these hospitals represent 64 per cent of the acute beds in Iowa. Under the program VRA hospitals will submit a prospective budget to the Rate Review Board and will seek approval for any increase in charges.

Klinefelters I Have Met

LEO A. MILLEMAN, M.D. lowa City, Iowa

In both a scientific and humorous manner the author recounts four actual cases of Klinefelter syndrome. In doing so, he recognizes Raymond Bunge, M.D., as one of the syndrome's major researchers.

IT IS FITTING to reflect occasionally on fascinating syndromes, individuals, and their historical origin. A syndrome often encountered by the urologist (and other clinicians as well) is the so-called "Klinefelter Syndrome." The "syndrome" was first described by Klinefelter, Reifenstein, and Albright in 1941¹ when they listed nine patients noted to have small testes, normal-to-reduced Leydig cell function and increased gonadotrophin levels. They noted the onset of symptoms during adolescence and the subsequent development of gynecomastia. Later, Heller and Nelson demonstrated the inconsistency of gynecomastia associated with the syndrome.²

Bradbury, Bunge, Reis, Barr and other authors, around 1956, demonstrated the presence of positive sex chromatin in Klinefelter patients.^{3, 4} In 1956 Bunge and Bradbury demonstrated the appearance of spermatozoal formation in isolated seminiferous tubules of three sex chromatin positive patients with so-called Klinefelter Syndrome.⁵ Subsequent authors continued to describe variations on the original 1941 syndrome such that the Klinefelter disorder was realized not to represent a specific clinical entity. Terms such as "true Klinefelter," "false Klinefelter" and "pseudo-Klinefelter" are still found in the literature and remain confusing. Most authors have

chosen to use the term Klinefelter in reference only to those patients whose sex chromatin is positive. The term syndrome should be applied to clinical manifestations present only after puberty as previously described by Bunge and Bradbury. Thus it is possible to have a prepubertal Klinefelter, but not a prepubertal Klinefelter, but not a prepubertal Klinefelter "Syndrome."

Despite the confusion of terms, patients presenting with clinical manifestations of the entity are being recognized more and more frequently after adolescence. Overzier's Review reports a one per 1,000 males incidence among the general population. The incidence approaches 10% of all male mentally defective patients. The key to the diagnosis of a Klinefelter patient rests on the physical exam. At the University of Iowa a debt of gratitude is owed to Raymond Bunge, M.D. (now professor emeritus of the Department of Urology) who has cautioned countless numbers of medical students to do a complete physical exam, including the genitalia. "If you look, you will find it." I looked and I did! Following are some actual case histories demonstrating some clinical manifestations of Klinefelters I have met.

KLINEFELTER X

I met "X" in the medical outclinic during my internship when he presented with symptoms of abdominal pain and "ulcer" history. He was newly married and having difficulty maintaining his role as a truck driver and "homelife" husband. He was just too tired to "perform well at either." His new bride was interested in a family. "X" was too, but things didn't develop easily. This all led to symptoms of abdominal pain which other doctors had been unable to relieve. On my initial exam I noted slight gynecomastia, a funny fur-capped hair line, and absent abdominal findings. On further complete physical examination I noted the striking small testes and normal penis. I knew I had found it. Later, testosterone levels and buccal smear confirmed the discovery of my first Klinefelter.

Dr. Milleman is a senior resident in the Department of Urology at University of Iowa Hospitals and Clinics.

"X" is now performing better with hormonal replacement and has no abdominal pain. His new bride still worries about starting a family.

KLINEFELTER XX

I continued my search later as a resident. In my first clinic rotation, I met "XX" who was referred by his girl friend for "hormone tests." She wished to see if "XX" was a superman. "XX" was a construction worker. He was not a good student but performed adequately at work. "XX" performed sexually quite well. That was the trouble. He would have intercourse for up to 45 minutes, reaching climax several times, and then was able to "perform again." His partners could not keep up with his demands. Physical exam revealed the classic small testes and normal penis. His masturbated semenogram after 45 minutes revealed a volume of .7 cc and azospermia. The buccal smear and testosterone confirmed my hunch—my second Klinefelter. After a course on sex education and hormone replacement "XX" now performs more "normally," claims his girl friend. Maybe he was a superman.

KLINEFELTER XXY

The most phenomenal case with which a resident could deal was "XXY" who came to the clinic sometime later. "XXY" was an unmarried 32-year-old from a small rural town who presented for evaluation of "regressed testicles." He had incidental complaints of a nervous breakdown six years previously, inability to work his farm more than four hours a day (which upset his partnerfather greatly), and castration complex. "XXY" stated his complaint as regressed testicles. In high school he was so awkward and weak he would hide beneath the "steps" in gym to avoid his physical education instructors. He masturbated often to climax but never had intercourse. He once had a girl friend.

"XXY" volunteered he had spent countless hours researching the subject of regressed testicles and offered the following conclusions: 1) I have reduced testicles caused by an unknown cause. 2) I could have cadmium poisoning from chewing on pencil erasures. 3) My pineal gland was damaged from a shoe store "floriscope" when I was 8 years old. 4) My testicles have never reached normal man size, and now shrank. 5) My testicles are not damaged, rather lying dormant waiting for the signal to grow to manhood. 6) I have a secret gland that is not functioning properly, causing my testicles not to grow. 7) I am

concerned about getting treatment before I am much past 30 as I am afraid they will start getting atrophy, which happens to men over 30. 8) I had hormone shots once which made my arms hurt, but helped lose irksome fat of my arms and chest and cut down my anxiety, but was not constant like a natural supply. 9) Hormone shots did not make me one bit more sexy. 10) Sublingual tablets make me super sexy but give me headaches and I get dizzy.

On physical exam "XXY" had gynecomastia, small testes and a normal penis. Buccal smear was positive. This was just the beginning. In drawing his plasma testosterone, he passed out. Later he got lost walking four flights of stairs straight down. After his initial evaluation the patient was sent home to return the next day for further evaluation. When he got more strength he managed to get to his car in the parking lot, but forgot how to drive it. Thus, he spent the night in the car and came to the clinic the next day stating he needed hormones sooner or he would be too tired to drive to his home 60 miles away. We agreed!

We performed more laboratory tests. At noon the patient walked across the street to a cafeteria for lunch but halfway across the street he saw a bus coming towards him and got so anxious he passed out in the street. No ill effects resulted except for missing lunch.

Because of these troubles, the patient was admitted to draw his blood tests and institute hormonal replacement. On discharge we said farewell, but when the patient reached the hospital lobby he forgot where he parked his car. He went to a phone booth to call the rooming house where he stayed when he first came to University Hospitals. In the phone booth, the patient became so confused trying to figure out the phone's coin slots he passed out. A nurse going off duty saw the fellow slumped in the booth, noted a weak pulse and pale color and called a code blue. The patient was rushed to the emergency room where he was resuscitated. He later awoke and asked for me. As I went to the E.R., I got details of the above story. We again admitted him for the sake of his safety. He was seen by the psychiatrists and his family who in time felt it safe for him to go home. He left without incident.

"XXY" is doing nicely now on IM hormonal therapy, but has written that he is considering going to Europe to evaluate other drugs as treatment for regressed testicles. He hopes people like us will win a Nobel prize for our "work on regressed testicles" and would like to volunteer his

case story to research! (Thus the impetus for this paper.)

THE LAST KLINEFELTER

My most recently discovered Klinefelter was a fellow who I interviewed in the infertility clinic. The patient stated he had no significant past urologic history. He had been married three years without a resulting pregnancy. He considered himself a "real live wire" in sexual performance. Further questioning revealed a maximum sexual intercourse frequency of once every two weeks since his marriage. He met all other criteria for a classic Klinefelter and has begun replacement hormones. His infertility problems continue!

The previous patients represent just a few of the so-called Klinefelter Syndrome patients I have encountered in my first three years following medical school. All were diagnosed by me and represent true case histories. I have aided in treatment of many others, including patients with families, criminal records, a patient with carcinoma of the prostate, and a pre-pubertal patient with positive buccal smear and testes biopsy demonstrating features that could develop into a future Klinefelter Syndrome.

There is nothing outstanding about patients with the so-called Klinefelter Syndrome. They present with all sorts of complaints. The key to diagnosis is awareness and a complete physical exam. Recognition of the findings and institution of subsequent evaluation and treatment will better the lives of many of these patients.

As urologists, we owe a tribute to Harry Klinefelter, Dr. Bunge and the many other clinicians and teachers like them who have pointed out this interesting area of urology, now recognized as an integral part of our specialty.

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Editorials

M. E. ALBERTS, M.D., Scientific Editor

ASPIRIN VS. ACETAMINOPHEN

Acetaminophen, when ingested in excessive quantities, may be more lethal than aspirin, and considerably more difficult to treat. The Committee on Drugs of the American Academy of Pediatrics has commented recently on acetaminophen. The comments are in response to the massive promotional messages in medical and lay magazines and on television.

Approximately 300 prescription and nonproducts which prescription contain acetaminophen are currently marketed in the United States. Acetaminophen does not share the adverse gastrointestinal, hemorrhagic and acidbase side effects of aspirin when taken in recommended therapeutic levels, but may produce severe, immediate and delayed toxicity when excessive quantities are ingested. Early symptoms do not accurately predict the possibility of later serious complications, particularly hepatic necrosis.

It is imperative that hospital laboratories have a method for determining acetaminophen blood levels, for the dose of the drug ingested and the resultant blood level are the most reliable early indications of prognosis. However, there is evidence to suggest certain age children may metabolize acetaminophen differently than adults. Consequently, it is difficult to predict hepatotoxicity in children by extrapolation from doses known to be toxic to adults. On the assumption that hepatic damage is likely to occur if an adult has taken a single dose of 15 gm, based on body surface area, a comparable dose for an average-sized 2-year old child is approximately 4 gm (equivalent to eight 500 mg capsules, twelve 325 mg tablets or 160 ml of 24 mg/ml syrup).

Plasma concentration of acetaminophen of more than 300 mg/ml four hours after ingestion will probably result in hepatic necrosis; 120-300 mg/ml is likely to result in necrosis; and less than 120 mg/ml unlikely to produce hepatic necrosis. A level of 120 mg/ml 12 hours after ingestion will probably result in hepatic necrosis. Other signs of impending hepatotoxicity include a continued rise in SGOT, SGPT and bilirubin levels and prothrombin time beyond the third day of ingestion. Consequently, it is obvious that acetaminophen should not be administered to patients known or suspected to have acute hepatocellular damage, such as those having Reye's syndrome.

There is no established specific therapy for acetaminophen poisoning. The drug is rapidly absorbed from the gastrointestinal tract resulting in possible damaging effects before treatment can be instituted. The stomach should be emptied as soon as possible, activated charcoal is to be given to minimize further absorption, and sodium sulfate given to produce catharsis. If hepatic damage becomes evident the usual medical therapy for acute hepatic failure should be instituted. Some evidence is available to indicate that in experimental trials N-acetylcysteine (Mucomyst) or methionine given orally may be effective in the treatment of acute acetaminophen poisoning, but this use must be reserved for patients at very high risk and in whom treatment can be initiated within 10 hours of ingestion.

The Committee concludes that acetaminophen is a safe and effective analgesic and antipyretic in usual therapeutic dosage, but is not superior to aspirin other than as an alternative in the patient hypersensitive to aspirin. No information is available about chronic toxicity arising from chronic use at recommended therapeutic doses. Parents should be educated to respect this drug as a po-

Committee on Drugs, American Academy of Pediatrics, Commentary on Acetaminophen, Pediatrics, 61:1, 1978.

tential poison and in the dosage forms recommended for children should not be dispensed in containers with more than 2 gm of acetaminophen. Physicians should keep abreast of new developments about the toxicity and the specific treatment for poisoning by acetaminophen. Each hospital laboratory should provide a method for rapid assay for acetaminophen in blood or serum. The acute toxicity of acetaminophen over-dose is potentially life threatening and much less amenable to therapy than salicylate toxicity. Physicians must be aware of this and caution patients to develop a respect for this drug.—M. E.A.

HOSPICE OF CENTRAL IOWA, INC.

If you know what a hospice is, fine. If not, it's time you learned, for, believe it or not, we now have one in Iowa. It is called Hospice Of Central Iowa, Inc.

A hospice, historically, was an inn or way station in the Middle Ages where travelers could stop for food, shelter and rest—"refreshment and renewal." The travelers were frequently pilgrims on their way to the Holy Land, and the proprietors were often members of a religious order. In recent years, the word "hospice" has been appropriated to mean a facility for the care of the terminally ill—a way station for those on the final leg of "life's journey." By association, the word has also come to mean a particular type of care for the terminally ill, even without the facility. In other words, hospice care can be integrated into a home care program, into a "palliative care unit" within an acute care hospital, or into a chronic care hospital or nursing home situation. The ideal, it is fair to say, is a free-standing facility—a separate institution, modeled after St. Christopher's Hospice in London.

Hospice care utilizes a team approach and may involve a physician, psychiatrist, nurse, social worker, clergyman, pharmacist, physical and occupational therapists, dietitian, and lay volunteers—all working with the patient, his family, and his own physician. Because the patient is beyond cure and is terminal (days, weeks, a few months), the entire effort is directed toward patient comfort and relief of fears and anxieties, when they exist. The typical patient is one who is dying of cancer, in pain.

Now we come to Brompton's Mixture. If you don't know what it is, take heed. Brompton's Mixture is an oral medication that contains heroin or morphine, ethyl alcohol, cocaine, and chloroform

water. Modifications often contain substitutes such as methadone, phenothiazine derivatives, a simple syrup. The hospice concept of pain control in the terminal patient is maintenance medication rather than PRN medication. Brompton's Mixture (or a modification) is given every four hours—around the clock, and the dosage is adjusted to an amount that prevents the onset of pain. The elimination of pain is the single most important feature of hospice care. Pain relief and "death with dignity" is the goal.

It has been said that a hospice cannot succeed without doctors in a leadership position, so it is well that we give it our attention. Certain questions come to mind:

- Since all families at some time experience death with its attendant sorrow and problems, and some way or another make out, is a team approach necessary?
- Why cannot pain control by maintenance be carried out by the patient's own physician, without the involvement of a hospice team?
- How will the expense of a hospice be borne? (A report referring to St. Christopher's Hospice states that an "analysis of the economics of maintaining such institutions suggests that society cannot afford to support an adequate number to meet the need.")
- Can it be that a hospice is not only a half-way house on the road to death, but also a half-way house on the road to euthanasia?
- Since a hospice is a place to die, would not a patient's entry frequently have a devastating impact on his morale?
- Is it not possible that a hospice might serve as an escape from responsibility for both the family and the patient's physician?

Hospice Of Central Iowa, Inc. is located in Des Moines. It is in the initial stage of organization and fund raising. It has cared for no patients as yet.—Daniel F. Crowley, M.D., Des Moines.





by R. M. CAPLAN, M.D.

STAGECOACHES, AMTRAK, AND CME

It was a nostalgia kick. I decided to spend a day in the process of getting from Chicago to New York by Amtrak. (I used to think, when just a kid, that it was fun to ride the train.) We left Union Station 90 seconds late. No portent in that, thought I. But when we were two hours late in reaching Gary, Indiana, my brow furrowed just a bit. The need to wear overcoat and gloves on the train was but a minor nuisance compared to the frigid discomfort of not wearing them. The heating system did manage to get repaired at Pittsburgh, which helped comfort the fact of having lost another five hours through the night. It was a treat to be able to experience intermittently the other thermostat setting—too hot. Winding through the Pennsylvania mountains with blue sky over a snowy landscape has its appeal—one needs only to blot out the grubby little towns and the ugly big cities, for the slag heaps are tolerable when covered by snow. Unimportant that it took another hour off the schedule to wind through those mountains and the megalopolis of Jersey to reach New York City eight hours late. The cheese omelette in the dining car was hot and good, and the carnations decorating the table were still pun-

Dr. Caplan is Associate Dean for Continuing Medical Education at The University of Iowa College of Medicine.

gent. And so, what matter the tardiness, except for the mangling of my schedule and the outrage of the people greeting my train.

One must adapt, roll with the punches, as it is said. But I'll now wager with any of you that the Amtrak System's chances for survival as a cross-country carrier are about the same as Iowa's chances to win the next Rose Bowl game.

And a pity, somehow. There must have been many grumbles when the iron horse replaced the stagecoach. Many travellers of those days must have preferred what seemed to be the solid dependability of the true horse and the relative privacy of a six-passenger coach. Now we can experience the stagecoach only in the museum and historical films.

And thus did arsphenamine replace mercurial inunction, to yield in turn to penicillin. And the iron lung to polio vaccine. What do you guess will replace coronary bypass surgery and renal dialysis? Although popular in the extreme today, they are as doomed as the stagecoach. Just imagine, though, all the facts and skills you will need to unlearn, abandon, and acquire in making that transition. How do you feel about doing that—angry, frustrated, curious, or eager? Your answer will tell you much about yourself as a lifelong learner, and our collective answer much about the future of our profession, and our society.

CONTINUING EDUCATION COURSES & CONFERENCES

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

May 8-11 Cardiology Today
May 11-13 Iowa Eye Association
May 15-16 Medical and Surgical Diseases in Pregnancy

June 2 June 4-9 June 14-16 Otolaryngology Clinical Conference Intensive Course in Pediatric Nutrition Society of Epidemiologic Research

The Question Box



by JOHN LARSON

BLUE SHIELD RELATIONS

Mr. Larson is Director, Professional Relations for Blue Shield of Iowa.

How does the professional relations staff serve Iowa physicians?

The professional relations staff serves as a communications link between Iowa physicians and Blue Cross and Blue Shield of Iowa and the Iowa Medical Society. Field representatives are health care benefit and third party reimbursement experts for both government and private business and use these skills to assist physicians and their staffs with professional service reimbursement questions.



What kinds of questions and problems are most commonly directed to the professional relations staff?

Most questions relate to the financing of health care. The number one question revolves around UCR reimbursement and explanations of how it works, why a certain amount is paid, why a service is or is not covered, and what CPT Codes should be used to receive proper reimbursement for services. The second most commonly asked ques-

tion relates to alternate methods of providing care such as the surgi-centers, pre-admission testing, care provided in a physician's office, and incentives for not hospitalizing patients (i.e., diagnostic testing in the physician's office).

Who are the professional relations representatives and how can they be contacted for assistance?

There are six (6) professional relations representatives who have designated service areas within Iowa and a map of those areas is provided. The Provider Service Center can arrange for a field representative to call on a physician's office. The toll free WATS number for offices outside of Des Moines is 1-800-326-2218. Physicians' offices in the Des Moines area can call 245-4688. Comments or suggestions regarding visits to physicians' offices should be directed to Mr. John Larson, Station 11, 636 Grand Avenue, Des Moines, Iowa 50307.

Are the field representatives available to assist physician office staffs with claims matters?

While the field representatives can assist with claims matters, Blue Cross and Blue Shield of Iowa has a Provider Service Center that is equipped to answer claims inquiries by computer. Since claims questions can be handled more efficiently and cost effectively in the Provider Service Center, it is suggested that both verbal and written inquiries be directed to this Provider Service Center.

How many physicians in Iowa are participating physicians?

During the last year we developed a professional relations education program and contacted all Iowa physicians. We are pleased that 84% of Iowa physicians are participating physicians—including 134 new physicians—and that 88% of our claims volume is generated by these physicians.

About IOWA Physicians

Dr. T. C. Piekenbrock was elected president of the Dubuque County Medical Society. Other officers are—Dr. John S. Chapman, vice president; Dr. R. W. Schope, secretary; and Dr. W. Donald Warren, treasurer. All are Dubuque physicians. . . . Dr. Michael S. Chandra, Sioux City, has been named a diplomate in cardiovascular diseases by the American Board of Internal Medicine. Prior to locating in Sioux City in 1976, Dr. Chandra directed the Pacemaker Clinic at University Hospitals in Iowa City. . . . Dr. Dorothy Gildea, Davenport, recently was elected vice president of the Davenport Maternal Health Center. Dr. W. D. Edgerton, Davenport, was reelected medical director of the Center. . . . Dr. Donald Blume, Sioux City, has been appointed director of medical affairs at St. Luke's Medical Center. Dr. Blume will assist St. Luke's medical staff in carrying out administrative responsibilities. . . . New officers of medical staff at Cass County Memorial Hospital in Atlantic are—Dr. Dwight H. Stone, chief of staff; Dr. C. L. Pigneri, D.O., vice chief of staff; and Dr. Thomas J. Payne, secretary-treasurer. All are Atlantic physicians. . . . Dr. John P. Viner, Iowa City, recently was certified by the American Board of Internal Medicine. Currently a fellow associate in the Division of Infectious Disease at the U. of I. College of Medicine, Dr. Viner is also a recent recipient of the AMA Physician's Recognition Award. He is the son of Dr. and Mrs. Thomas R. Viner of Leon.

Dr. H. A. VanHofwegen, Spencer, has been named to the national faculty of Advanced Cardiac Life Support component of the American Heart Association. The national faculty oversees and directs the ACLS portion of the AHA Emergency Cardiac Care Program. . . . Dr. Darrell Fisher, Mason City, was guest speaker at recent meeting of the Mason City Sertoma Club. Dr. Fisher's topic "Surgical Hip Replacement." . . . Dr.

Byron Augspurger, Des Moines, was elected president of the medical staff at Mercy Hospital; Dr. Frederick Katzmann, president-elect; and Dr. Walter Riley, secretary-treasurer. . . . Dr. Larry Foster, Newton, was guest speaker at the February meeting of the Jasper County Registered Nurses Association. Dr. Foster discussed the dangers of fad diets. . . . Dr. A. B. Grundberg, Des Moines, and Dr. Anthony J. Piasecki, Dubuque, were named fellows of the American Academy of Orthopedic Surgeons at the group's annual meeting in Dallas, Texas. . . . Dr. Walter M. Block, medical director of the Child Evaluation Clinic in Cedar Rapids, was guest speaker at recent meeting of the Marshall County Association for Children with Learning Disabilities. . . . Dr. H. C. VanderMeulen, longtime Pella physician, was presented the seventh annual Pella Community Service Award at a banquet sponsored by the Pella Chamber of Commerce. Dr. VanderMeulen was cited for his almost 50 years of service and contributions to the health and welfare of the Pella community.

Dr. A. J. Herlitzka has been named president of the medical staff at St. Joseph Mercy Hospital in Mason City. Other officers are-Dr. Robert L. Borgman, vice president; Dr. William C. Rosenfeld, member-at-large; Dr. Charles B. Wilmarth, secretary and Dr. V. J. Adams, past president. All are Mason City physicians. . . . Dr. F. C. Perkins, Hedrick, spoke on colorectal cancer at a recent meeting of Keokuk County nurses and physicians. Dr. Perkins is Keokuk County medical director for the American Cancer Society. . . . Dr. Jay Bilgi recently began pediatric practice in Ankeny. A native of India. Dr. Bilgi served his pediatric residency at Blank Children's Hospital in Des Moines. . . . Dr. Praful Mehta has been named medical director of the River Bluffs Mental Health Center in Council Bluffs. Dr. Mehta served his residency in psychiatry at

Creighton University School of Medicine. Prior to locating in Council Bluffs, he was on the staff of Veterans Hospital in Lincoln, Nebraska. . . . Dr. Robert W. Sumners, associate professor in Department of Internal Medicine at U. of I. College of Medicine, was guest speaker at the February meeting of the Wright County Medical Society. Dr. Sumners' topic "Treatment of Ulcers."

Dr. Samuel J. Foman, professor in the Department of Pediatrics at U. of I. College of Medicine, discussed feeding normal infants at recent Ames seminar on "Current Issues in Nutrition 1978." The event was sponsored by the Nutrition Council of Iowa, Nutritional Sciences Council of Iowa State University and the Iowa Dietetic Association. . . . Dr. Samuel Estepa has joined Drs. Ramon and Cristina Yaldua at their New Sharon Clinic. Dr. Estepa received his medical education at Manila Central University in the Philippines and had postgraduate training at Catholic Medical Center in New York. . . . Dr. Richard L. Kreiter, Davenport, is a new fellow of the American Academy of Orthopedic Surgeons. ... Drs. Sidney Brody, Ottumwa, E. M. Eneboe, Hawarden, and D. G. Sattler, Kalona, were presented "Team Doctor Awards" during the state wrestling meet by the Iowa High School Athletic Association. . . . At recent annual meeting of the Visiting Nurses Association, Dr. C. W. Seibert, Waterloo, was elected president and Dr. H. S. Jacobi, Waterloo, was re-elected to board of directors. . . . Dr. Thomas A. Anderson, professor in the Department of Pediatrics at U. of I. College of Medicine, spoke at a recent meeting of the Johnson County Medical Society. Dr. Anderson's topic "Who Decides What We Eat." . . . In the About Iowa Physicians section of the March issue of the JOURNAL, Dr. Jeffrey B. Crandall, Cedar Falls, was identified as a family practitioner. Dr. Crandall is an internist and restricts his practice to internal medicine. We regret the error.

Drs. Leonard M. Ellertson and Homer L. Ramsey recently joined the Student Health Service staff at Iowa State University in Ames. Dr. Ellertson is a graduate of the U. of I. College of Medicine and has been in general practice in Albert Lea, Minnesota, for 25 years. Dr. Ramsey received the M.D. degree at U. of I. College of Medicine in 1976 and interned at San Joaquin General Hospital in Stockton, California. This past year, Dr. Ramsey served the Hupa Indian



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Tribe in California. . . . Dr. Robert E. Glesne, Mason City, was guest speaker at the March meeting of the Wright County Medical Society. Dr. Glesne's topic "Urological Problems." . . . Dr. Dale Wassmuth, Sioux City, has been named president of the Siouxland Medical Education Foundation's Board of Directors. The Siouxland Medical Education Foundation was organized in 1975 and sponsors the Sioux City Family Practice Residency program. . . . Dr. Beth Penrose is new chief of anesthesia and respiratory care at Sartori Memorial Hospital in Cedar Falls. Dr. Penrose received the M.D. degree at the University of Kentucky Medical School and completed her residency in anesthesiology at University Hospital in Lexington, Kentucky. Dr. Penrose has been in private practice in Morehead, Kentucky. . . . Dr. Larry R. Davis recently entered the practice of anesthesiology in Fort Dodge. Dr. Davis received the M.D. degree at the University of California, Irvine, and served his anesthesia residency at University of Southern California Medical Center in Los Angeles, California.

Drs. R. E. Donlin and J. H. Spearing recently celebrated 30 years in medical practice in Harlan.



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The two physicians located in Harlan on February 1, 1948. . . . Dr. Lloyd J. Filer, Jr., professor in the department of pediatrics at the U. of I. College of Medicine, was guest speaker at a recent ISU seminar in Ames. His topic "Studies of Placental Transfer of Food Additives in Primates." Dr. Filer's talk is one of a series of seminars sponsored by the ISU Nutritional Sciences Council. . . . Drs. Robert L. Cozine and James L. Coffey, Emmetsburg, recently were appointed to the faculty of the University of Minnesota Mayo Medical School. Both doctors were named clinical instructors in the Department of Family Practice.

Dr. Conrad B. Frydenlund, radiologist, recently joined the medical staff at Floyd County Memorial Hospital in Charles City. Dr. Frydenlund received the M.D. degree at University of Minnesota School of Medicine; interned at San Bernardino County Hospital in California and served his residency at the University of Louisville in Kentucky. . . . Dr. Stephen L. Bloom has joined Dr. Robert E. Hedican in the practice of obstetrics and gynecology in Waterloo. Dr. Bloom attended New York Medical College in New York City; interned at St. Mary's Hospital in Duluth,

Minnesota and served his residency in obstetrics and gynecology at the University of Wisconsin School of Medicine. Prior to locating in Waterloo, Dr. Bloom was associated with the Duluth Clinic in Minnesota. . . . Dr. J. L. Ehrenhaft, professor and chairman in the Division of Thoracic and Cardiovascular Surgery at University Hospitals in Iowa City, was guest speaker at the February meeting of the Woodbury County Medical Society. Dr. Ehrenhaft's topic "A Review of Surgery for Valvular Heart Disease." . . . Dr. Steven J. Phillips, director of the cardiovascular medicine and surgery section at Mercy Hospital in Des Moines, recently was elected a director of Cobe Laboratories, Inc., Lakewood, Colorado.

DEATHS

Dr. Byron D. Hartley, 74, retired Mt. Pleasant physician, died February 22 at the Henry County Health Center. Dr. Hartley received the M.D. degree at U. of I. College in Medicine in 1928. During World War II, he was a captain in the U. S. Army Air Force Medical Corps serving in the European Theater. Prior to his retirement, Dr. Hartley had practiced medicine in Mt. Pleasant for over 40 years.

Dr. Robert Vernon, 54, his daughter, Laura, 22, and son, Andrew, 16, died in an airplane crash in Colorado on February 25. Also killed in the crash were two Iowa State University athletes, Jeffrey L. Myers, Davenport, and Brian G. Vincent, Bettendorf. Dr. Vernon, his son and daughter and the ISU students were on a skiing holiday in Aspen, Colorado. Dr. Vernon received the M.D. degree at U. of I. College of Medicine; interned at Louisville General Hospital in Louisville, Kentucky; and served residencies at Passavant Memorial Hospital in Chicago and Northwestern University Medical School. He was a member of the American Board of Pathology; American Society of Clinical Pathologists; Iowa Association of Pathologists and American Association of Blood Banks. Memorials may be sent to the University of Iowa Foundation, Vernon Memorial, Alumni Center, Iowa City, Iowa 52242.

Dr. Joe G. Fellows, 73, retired Ames physician, died March 26 at Mary Greeley Hospital in Ames. Dr. Fellows received the M.D. degree at the U. of I. College of Medicine in 1932. He began his medical practice in Ames in 1933 and retired in 1965. Survivors include a son, Dr. Joe F. Fellows, Des Moines.

Medical Assistants



by BETTY EHLERT, CMA-A

INSTALL NEW PRESIDENT

Mrs. Jean Gold, Davenport, has been installed as state president of the American Association of Medical Assistants, Iowa State Society. The installation occurred April 29 during the state convention.



MRS. JEAN GOLD

Mrs. Gold is the mother of four children. One son, William, practices medicine in Bethesda and Washington, D. C. His wife is in her second year of residency at Children's Hospital in infectious diseases of children.

Mrs. Gold is office manager for Urological Associates in Davenport. She has held local AAMA offices, served two years as treasurer, two years as secretary, vice president and president-elect on the state level.

She serves on the social concerns committee of her church and is chairman of the local blood bank program.

PRESIDENT'S MESSAGE

This year President Carter has urged us to get back to the 3 R's. I would like to change the 3 R's to 3 C's—Communication, Cooperation, Concern.

I would like to see a communication system between our chapters that would not have a weak link. As each of us know, a chain is only as strong as its weakest link, so we must all endeavor to do our very best to keep all lines of communications open.

I have been told there are three ways to communicate—telephone, telegraph and tell a woman. We know this is not true as in our profession, we have to be very discreet about what we tell. In AAMA our lines of communication should be open, so we can cooperate with each other on ideas, seminars and membership. Cooperation should be strong in our chapters, in our state and at the national level.

Communication and cooperation brings us to the third C—Concern. We should be concerned about the image of our members. Proudly we should stand and declare we are the American Association of Medical Assistants—an educational organization to inspire its members to render honest, loyal and more efficient service to the profession and to the public which they serve. We should be alert to other groups posing as an affiliate of AAMA and to educate our members to also be aware of these other groups.

Of course, we should add a 4th C—Continuing Education. If we practice the first 3 C's, we will have the cooperation of the other chapters, communication telling of their activities and concern that we are presenting a professional picture. All of these will bring us to a continuing education program.

Let us all practice the 3 C's this year and see how much stronger our organization can be.

LIST YOUR WANTS

CLASSIFIED ADVERTISING RATE—\$1 per line, \$10 minimum per insertion. NO CHARGE TO MEMBERS OF IOWA MEDICAL SOCIETY. Copy deadline—10th of the month preceding publication.

MEDICAL DIRECTOR, CLINICAL DIRECTOR, INDUSTRIAL HEALTH and other medical opportunities available on a national basis. Salaries commensurate with experience. Top fringe benefits. Relocation expenses, interview expenses and agency fees paid by employers. Let us help you relocate to the area of your choice. Capital Personnel Service, 814 Central National Bank Bldg., Des Moines, Iowa 50309. Phone 515-283-2545.

FAMILY PRACTITIONER—wanted to join two-man, incorporated practice—immediate opening—liberal fringe benefits—generous starting salary. Contact Business Manager, Clinic of General Medicine, P.C., 4001 Ingersoll, Des Moines, Iowa 50312. Phone 515/274-1518.

GENERAL SURGEON NEEDED—Excellent opportunity in west central Iowa community of 10,000. New hospital, partnership available, good contract. Call Ed Murphy, Carroll Medical Center, Carroll, Iowa. 712/792-1500.

RADIOLOGIST WANTED—Northeastern Iowa College community with excellent lifestyle for family living needs a radiologist to staff local hospital. Very good first year income potential and opportunity for growth. Call Collect, James R. Young, M.D., 319/352-3733 or 319/352-4340.

BOARD CERTIFIED PSYCHIATRIST—with proven training and experience in neuropsychophysiology and biomedical engineering. Job will include evaluation of EEG, DC-EEG, photoplethysmography and DC-photoplethysmography. Troubleshooting, daily maintenance and complete repair of all equipment also expected. Salary commensurate with qualifications. Send curriculum vitae and credentials to—Neurological Institute & Pain Center, 809 Badegrow Bldg., Sioux City, Iowa 51101.

PHYSICIAN'S ASSISTANT—FAMILY NURSE PRACTITIONER, R.N., B.S.—desires relocation in central or eastern Iowa. Seeking a challenging position with active practitioner(s) or clinic group. Write No. 1531, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

MEDICAL DIRECTOR—One of the nation's finest retirement homes is searching for a medical director to replace retiring director. Located on beautiful grounds in a progressive midwest city, this facility serves more than 500 residents in a total retirement-living setting. Levels of care vary from total independent living in new apartments to a new 250-bed intermediate nursing care facility. Office facilities are furnished for physician. In addition, there are also a complete lab and physical therapy department. Interested applicants may apply directly to Dr. Lloyd Latta, Administrator, Friendship Haven, South Kenyon Road, Fort Dodge, Iowa 50501.

OFFICE SPACE AVAILABLE—Physician to share 1,400 square feet in completely equipped office. Adequate for surgical specialties or family practice. Prime location—2130 Grand Avenue, Des Moines, Iowa. Available after 6/1/78. For more information call 515/243-0028.

GP/FP—MD/DO—Needed for southwestern Iowa communities. Population of towns varies from 500 to I,000. If interested, please write or call Professional Evaluation and Treatment Services of Southern Iowa, Inc., Box 71, Clearfield, Iowa 50840. 515/336-2205.

FOR SALE OR LEASE—I,430 square feet office space, Des Moines Medical Center, across from Mercy and close to Lutheran Hospital. For further information call Dianne at 515/244-9141.

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President's Page

The Iowa Medical Society will be represented by your delegates and officers at the annual meeting of the American Medical Association June 16 to 22 in St. Louis. This is an important year for us to stick together, to belong to and be active in the Iowa Medical Society and the AMA. Through the efforts of these organizations, hopefully, we will survive the year without entering into federal medicine. The AMA House of Delegates has some important decisions to make in St. Louis. I hope, with you, the decisions are wise ones.

As you know, you are represented on the Iowa Health Systems Agency Board (if you live in one of the 91 IHSA counties) by four medical doctors and one osteopathic physician. This too is an important area for our attention. We promise we will monitor and attempt to influence the HSA organization to



keep medical care in as locally a determined status as possible. We hope the hospital bed level and occupancy guidelines established by our good Iowa task force will be approved by HEW. We can live with the flexibility afforded by them.

The emergency medical services organization is becoming more active in the state. Hopefully, this will impact favorably on the entire state. The EMS of Area I is pursuing and likely will procure federal funding to upgrade the emergency rooms in the hospitals in this 21-county area. Also upgraded will be both the personnel and equipment associated with ambulances.

In the coming year the IMS will continue to seek the best insurance program of any midwest state for both personal and liability coverages.

We hope you will ask your colleagues who are not now members of the IMS and AMA to please join in this important year of decision.

Anss Gerard Mr

Russell S.Gerard, II, M.D., President

IOWA Medical Miscellany

INSTALLED... Russell S. Gerard, II, M.D., a general surgeon from Waterloo, was installed as 1978-79 president of the Iowa Medical Society May 7 to succeed L. W. Swanson, M.D., Mason City. Dr. Gerard has held various important IMS posts, including service as chairman of the Committee on Medical Service.

ELECTIONS... Paul M. Seebohm, M.D., Iowa City, was chosen president-elect, also on May 7, by the 1978 IMS House of Delegates. Dr. Seebohm is executive associate dean of the University of Iowa College of Medicine. New Society vice-president is Maurice E. Kraushaar, M.D., a family practitioner in Fort Dodge. Elected to the vice-speakership of the House of Delegates was Robert T. Melgaard, M.D., a Dubuque pediatrician.

RE-ELECTED... Named to additional terms as IMS officers were Hormoz Rassekh, M.D., Council Bluffs, trustee; William R. Bliss, M.D., Ames, secretary; Thomas A. Burcham, M.D., Des Moines, treasurer; John M. Rhodes, M.D., Pocahontas, and Erling Larson, Jr., M.D., Davenport, AMA delegates; Clarence H. Denser, Jr., M.D., Des Moines, and Robert Whinery, M.D., Iowa City, AMA alternate delegates; L. D. Caraway, M.D., Amana, speaker, House of Delegates; Jackson Ver Steeg, M.D., Des Moines, and Cecil W. Seibert, M.D., Waterloo, liaison delegates; and councilors—Donald F. Rodawig, Jr., M.D., Spirit Lake (3); Dennis J. Walter, M.D., Des Moines (5), and James D. Kimball, M.D., Osceola (10). John Kelley, M.D., will again serve as chairman of the IMS Board of Trustees. Likewise, John E. Tyrrell, M.D., Manchester, and Dan M. Youngblade, M.D., Sioux City, were re-elected chairman and secretary, respectively, of the Judicial Council.

LIFE MEMBERS . . . Elected to IMS Life Membership by the 1978 House of Delegates were Enoch G. Kettelkamp, M.D., Monona; George D. Jenkins, M.D., Burlington; Roy A. Patterson, M.D., Webster City; David F. Shaw, M.D., Britt; Grace E. Field, M.D., Edmonds, Washington; William E. Spear, M.D., Oakdale; Conan J. Peisen, M.D., Des Moines; Jesse H. McNamee, M.D., Des Moines and Howard I. Down, M.D., Sioux Ćity.

AWARD RECIPIENTS . . . James F. Bishop, M.D., Davenport, was presented the 1978 IMS Merit Award at the May session of the House of Delegates. Dr. Bishop was Society president in 1976-77. The Washington Freeman Peck Award, presented to organizations making significant contributions in the health field, was received this year by the American Diabetes Association, Iowa Affiliate, Inc.

HONORARY MEMBERSHIP . . . For the first time ever, the House of Delegates voted an honorary membership in the Iowa Medical Society. This distinction was bestowed on Donald L. Taylor, who served for many years as executive vice president of the Society. The action was taken on the recommendation of the IMS Judicial Council in accordance with the IMS By-Laws. Mr. Taylor will be presented a plaque recognizing his election at a future Executive Council meeting.

RECOGNITION... Well known Iowa physician Elmer M. Smith, M.D., Des Moines, has been elected a distinguished alumnus in the Alpha of Iowa chapter of Alpha Omega Alpha, honorary medical society. Dr. Smith was cited for his many contributions to health care delivery at the state, national and international levels. He now serves as a consultant to the State Department of Social Services.

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LEGISLATIVE SESSION MEDICALLY GOOD

T's NOT over yet. The Iowa General Assembly for 1978, that is. Still to be debated, beginning June 30, is the complex issue of mortgage interest. Official adjournment will follow this.

But the year's gavel appears to have fallen on health care issues. This being the case, it's appropriate to observe that this second session of the biennium has been a good one from the medical perspective. Essential appropriation measures were passed with what appears to be adequate funding. Several other Society-backed proposals received Assembly okay. And few bills, if any, were passed over which the IMS had particular concern.

Iowa lawmakers deserve commendation for their prudent and reserved consideration of this year's health care proposals. Often a successful legislative session is measured by number of bills passed. An assessment on this basis is suspect because volume usually means a proportionate amount of unsound or inappropriate legislation. In other words, this year, even though only a few health care propositions were approved, the session deserves to be ranked as a good one.

Because this is the second session of the 67th biennium, all bills expire regardless of status. They must be introduced anew and follow the legislative trek through both chambers. This process will begin in January 1979.

What 1978 health care legislation was enacted? Here are the major items from IMS vantage:

Family Practice Residency Appropriation—An amount of \$985,000 has been okayed to help support Iowa's community-based family practice residency network. The success of this program is indicated by simple notation that in 1970 there were no such programs and now there are approximately 160 residents in eight FPR locations.

Medicaid Appropriation—The Assembly approved funds for the Department of Social Services which include \$79.5 million for the Medicaid program. This is believed to be adequate to continue Title XIX services on their present basis.

Board of Medical Examiners Appropriation—A boost in the BME budget is provided to support its increased work in the era of required continuing education. Of the sum allocated nearly \$30,000 is for a new investigator to enforce the stricter disciplinary statutes passed in 1976. Also it is mandated that \$3,200 be used to activate the physician's assistant advisory board.

Radiation Safety—This IMS-supported measure allows the Department of Health to establish a division of radiation protection. The division will regulate the installation and use of radiation-producing equipment and materials.

Emergency Medical Service—This law will provide certification to qualified advanced emergency medical technicians and paramedics. This certification will be determined by the Board of Medical Examiners. A 12-member council (to include 5 physicians) will advise the BME and the Department of Health in their respective phases of the law. Certain favorable liability provisions are contained in the law.

Other enacted legislation includes (1) funding for administration of the Certificate of Need program, (2) an autopsy program for suspected victims of sudden infant death syndrome, (3) clarifying statutes on hospitalization of the mentally ill, etc.

Measures not acted on, and consequently ceasing to exist until re-introduction occurs, include (1) use of diagnostic drugs by optometrists, (2) institutional employment of radiologists and pathologists, (3) expansion of chiropractic practice limits, (4) creation of a statutory patient bill of rights, (5) legalization of Laetrile, (6) patient or client ownership of professional records, and (7) granting of certain prescription authority to physician's assistants.

Now it's on to the future. The November 7 general election will cover 100 House and 25 Senate seats. This balloting will determine what's ahead in 1979. It'll be worthwhile for physicians and all citizens to become active in this election process.

IN THE PUBLIC INTEREST



Temperature Changes During Anesthesia and Surgery

HANNA T. WANNA, M.D.

Des Moines, Iowa

Discussed here are reasons for and responses to body temperature changes which occur during surgery and anesthesia. Included is a review of incidental hypothermia, hyperpyrexia and malignant hyperthermia.

TEMPERATURE REGULATION in the body is a well-guarded process which has been known for a long time as a body defense mechanism able to keep the "milieu interieur" constant. The temperature regulating center is located in the hypothalamus. It receives afferent impulses from sensory receptors in the skin and other areas. The efferent limb is mediated by the sympathetic nervous system. Body temperature adjustments are made either by a fine regulating mechanism such as skin blood flow or by coarse mechanisms such as shivering and sweating.

Anesthesia depresses the body's ability to regulate body temperature, so an anesthetized patient tends to become poikilothermic; that is, he assumes the temperature of the immediate environment.

Dr. Wanna is in the private practice of anesthesiology in Des Moines. This paper was prepared in 1977 while Dr. Wanna was an associate in the Department of Anesthesia at University of Iowa Hospitals, Iowa City, Iowa.

INCIDENTAL HYPOTHERMIA

Incidental hypothermia, then, is the most common temperature change that occurs during surgery under anesthesia. The rate and magnitude of the drop in body temperature depends on the following factors:

- A. Ambient temperature. With the advent of air conditioning in operating theaters the ambient temperature is set low for the comfort of the personnel. As shown by Morris, ¹⁻³ ambient temperatures below 21°C (70°F) are usually associated with body temperature drops below 36°C. The operating rooms could be classified into three categories by means of their effect on patients' temperatures:
- (1) 17-21°C (63-70°F) in which no patient maintained a normal body temperature;
- (2) 21-24°C (70-75°F) in which 70% of the patients remained normothermic (body temperature 36-38°C) and 30% became hypothermic;
- (3) 24-26°C (75-79°F) in which all patients remained normothermic.
- B. Age and size of patient. Infants and neonates, especially prematures, are more likely than older children and adults to become hypothermic during anesthesia for several reasons:⁴
- (1) high surface area-volume ratio which is 2.7 times greater in infants than adults;
- (2) the minute ventilation in infants is relatively high when compared with their mass, so

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they lose relatively more heat to humidify the inspired gases.

(3) infants less than three months of age do not shiver. Shivering appears between the third and sixth month of life. Cold stress stimulates norephinephrine secretion in the newborn which in turn activates cyclic AMP system, and fat is metabolized to fatty acids providing heat.

In the adult population the elderly lose more heat than the younger age groups and drop their temperatures more as shown by Goldberg and Roe.⁵ Although in three different age groups the average heat loss in all patients was 43.5 cal/sq m/hr, heat production was less than heat loss with increasing age resulting in heat deficit and temperature drop.

- C. Site of operation. Patients undergoing intra-abdominal or intrathoracic operations lose more heat than others because of more exposed surface. Irrigation of these surfaces with cold fluids adds to the heat loss.
- D. Agents and drugs. Premedication, besides causing sedation and sleep, may cause vasodilation, and in a patient with clothes removed in a cold operating room, increased radiative heat loss can result. Chlorpromazine, besides causing vasodilation, has a specific depressant effect on the thermoregulatory center making this drug efficacious in inducing hypothermia.

Potent inhalation agents in use today, especially halothane, cause vasodilation and heat loss. Muscle relaxants also contribute to temperature drop as they take away muscle tone and reduce heat production.

- E. Duration of operation. In operations lasting a couple of hours, the greatest drop usually occurs in the first 30 minutes. This is because of the effect of anesthesia induction, exposure to cold ambient temperature, and preparation of the operative site with cold antiseptic solutions. However, in operations lasting more than three hours there is a further drop in temperature, according to Harrison et al. ⁶
- F. I.V. fluids. Administration of intravenous fluids may have a substantial effect on the body temperature of the anesthetized patient. This is especially significant during massive administration of cold blood at 4°C. One thousand ml of cold blood at this temperature will cause a fall in body temperature of about 0.5°C.

Significance of Hypothermia: In older children and adults, a small fall in body temperature usually causes no significant problems. Body temperature drops during anesthesia may be desirable because of the more than 15% associated decrease in metabolic rate and oxygen consumption. However, such temperature drops, depending on their severity, may lead to a relative overdose and prolongation of action of anesthetic and other drugs and also be a cause of certain arrhythmias.

The main concern with hypothermia is in the awakening period, when the thermostatic regulating reflexes return and the patient experiences shivering, vasoconstriction and oxygen consumption rises markedly leading to anaerobic metabolism and acidosis if the oxygen requirement is not met. Roe et al⁷ reported an average rise of 68% in oxygen consumption in the early period in adults whose body temperature fell by more than 0.2°C during surgery, and a rise of 92% after a fall of body temperature of 0.3-1.2°C. In certain cases of intense shivering, oxygen consumption might rise to 500% of the normal level. This increased demand for oxygen consumption comes at a time when the patient may be having respiratory depression and/or obstruction following anesthesia, and it also contributes to an increased workload on the cardiovascular and respiratory systems.

In infants and neonates, if a temperature below 34°C (93.2°F) is allowed to persist for more than a few hours, a syndrome known as sclerema neonatorum may develop.⁸ The condition is characterized by hard, leathery-textured skin, solidification of subcutaneous fat, and it is usually fatal.

Prevention and Treatment: To prevent incidental hypothermia it must be detected, so monitoring of body temperature becomes essential. This may be done by using a rectal, esophageal, tympanic membrane, or skin temperature probe. The following may be done to prevent and/or treat this condition:

- 1. The most important step is keeping room temperature between 21-24°C, and in the case of newborns and infants it should be kept at 27°C (80°F). Special operating room tables with a source of radiant heat are in use today to provide such environmental temperature to this category of patients, and to burn patients. This radiant heat and high temperature may be uncomfortable to the surgical team. However since most heat loss from a child occurs early during anesthesia induction and preparation for surgery, the room temperature could be lowered and radiant heat turned off later if the child's temperature is stable.
- 2. Minimum exposure of the body to the cold atmosphere and wrapping with warm blankets.

- 3. Warming of the preparation solutions, I.V. fluids, and blood and intraoperative irrigating solutions.
- 4. A warming blanket is helpful in maintaining body temperature. However it has been shown by Goudsouzian $et\ al^9$ that its value in patients larger than $0.5\ m^2$ in size (equivalent to a child weighing $10\ kg$) is doubtful.
- 5. Heating and humidification of inspired gases. In a nonrebreathing system which is commonly used for children weighing less than 15 kg, gases are passed through a cascade humidifier. The temperature of gases in this system should be carefully monitored to prevent a tracheobronchial burn. To be effective the temperature of the gases should be about 32°C (90°F).

Inspired gases from a circle system are partly warmed and humidified by the soda lime absorber. In the case of the infant circle system the temperature of the inspired limb may be kept high by a warming electric tape.

Tausk et al¹⁰ describe a new heated humidifier which supplies gases at 100% relative humidity at 35°C at the patient inlet to prevent intraoperative temperature drop. They claim these warm humidified gases contributed significantly to the maintenance of homeostasis during anesthesia as demonstrated in 19/25 prolonged procedures.

HYPERPYREXIA

The other temperature change that might be associated with anesthesia and surgery is an elevation. A patient may come to surgery with an elevated temperature. This could be the result of his disease process and/or infection. In children, in addition, it might be caused by dehydration or following an overdose of anticholinergic premedication. Such patients may start with an elevated temperature when anesthetized, but in present day operating rooms the temperature usually drops and the patient becomes hypothermic.

A benign rise in temperature might occur in certain cases if the ambient temperature is high, draping is excessive, and measures to warm the patient are excessive. Besides the rise in temperature, skin or other types of burns may be caused.

However, any time the body temperature is noted to rise the anesthetist should keep in mind the condition of malignant hyperthermia which, if not diagnosed and treated early, may prove very serious or possibly fatal. For detailed reading on this condition, readers are referred to Gordon, Britt and Kalow;¹¹ Ryan.¹² The following is a brief discussion of this condition.

MALIGNANT HYPERTHERMIA (MALIGNANT HYPERPYREXIA)

This catastrophic complication of anesthesia is characterized by fever, tachycardia, tachypnea and cyanosis. Incidence is about 1 in 15,000 in children and 1 in 50,000 in adults. These figures are subject to geographic variation. Familial genetic transmission is by single autonomal dominant gene. Occurrence is greater in adult males and it is not sex-linked.

As far as its etiology, it is postulated that the sacroplasmic reticulum of the muscle is unable to accumulate calcium; this elevated myoplasmic calcium activates phosphorylase kinase and myosin ATPase, thus stimulating glycolysis and producing phosphate and heat. Muscle contracture is triggered and uncoupling of oxidative phosphorylation takes place; as a result there is increased aerobic and anaerobic metabolism.

Most potent anesthetic agents, local anesthetics of the amide type, and muscle relaxants of both depolarizing and non-depolarizing types have been associated with malignant hyperthermia. Two types have been described, the rigid and non-rigid. Rigidity, instead of relaxation, might follow succinylcholine injection making this a useful premonitory sign of the onset of the disease.

Preoperative suspicion or detection of malignant hyperthermia in these patients is brought about by:

- 1. Family history: related anesthetic problems or deaths in the family;
- 2. Physical features: certain types of features and congenital abnormalities involving muscles have been described in these patients, such as: generalized muscle bulk, localized muscle weakness, muscle cramps, difficulty controlling temperature, joint hypermobility (especially knee), ptosis and squint, kyphoscoliosis, hernias and clubfoot.
- 3. Serum creatine phosphokinase levels: This was thought to be diagnostic but it has been shown that it is not, and one-third of malignant hyperthermia patients have a normal CPK. If the level is very high, it is of value;
- 4. Caffeine-induced contraction of a muscle biopsy appears to be the most accurate and reproducible sign.

This syndrome has been seen outside the operating room in association with the use of psychotropic agents, narcotics, and anticholinergics and is accompanied by a high mortality rate if not diagnosed early and treated vigorously.

Symptoms and Signs: As mentioned above, one of the earliest symptoms in the rigid type of malignant hyperthermia is rigidity of the masseter and other peripheral muscles following succinylcholine. If there is no doubt about this, then a presumptive diagnosis of malignant hyperthermia should be made. No further anesthesia should be given and preparations should be made to treat its possible onset.

The most consistent early sign is persistent tachycardia which is usually associated with tachypnea and dark blood in the surgical field. These are the result of severe metabolic and respiratory acidosis secondary to the hypermetabolic state and the increased oxygen requirement. Arrhythmias are the result of hyperkalemia that accompanies this situation. The following is a list of the signs and symptoms: tachycardia—most consistent, unstable blood pressure, arrhythmias, cyanosis, skin mottling, fever, rigidity—not always present, and profuse skin sweating.

Fever: Fever is a late sign. However, once it appears it escalates at a rapid rate. A rise of 0.5°C in less than one-half hour should arouse suspicion. The only way to confirm diagnosis in case of early suspicion is by determining arterial blood gases which would show severe metabolic and respiratory acidosis. If metabolic acidosis is not present, then malignant hyperthermia can be excluded. Other laboratory findings are the electrolyte disturbances, especially hyperkalemia.

EARLY TREATMENT IMPORTANT

Treatment: Because of the high mortality rate of this condition, success in treatment depends on early diagnosis, available means, and early and vigorous therapy. Treatment consists of the following:

- 1. termination of anesthesia and surgery; changing of anesthetic tubes;
- 2. hyperventilation with 100% oxygen to combat hypoxia and hypercarbia;
- 3. administration of large amounts of bicarbonate;
- 4. arterial line obtained in order to monitor hemodynamics and acid-base status;
 - 5. cooling by:
 - (a) large volume of iced intravenous fluids
- (b) lavage of body cavities and surgical wounds with iced intravenous solutions
 - (c) immersion in ice
- (d) cardiopulmonary bypass if readily available;

- 6. administration of insulin and glucose to combat hyperkalemia and provide the extra energy needed;
- 7. diuretics and mannitol to keep up urinary output (> 2 ml/kg/hr). This is in order to prevent myoglobin from forming casts in the kidney and leading to renal failure.

Specific Therapy: Procainamide in a dose of 1 gm/70 kg in 500 ml given over a 10-minute period seems to have a specific effect. Procaine hydrochloride is similarly effective. However once the syndrome was established in Landrace pigs these drugs did not help. Dantrolene sodium, a hydantoin derivative, has recently been shown effective in reversing the syndrome, abolishing rigidity and temperature rise. Its action is thought to be related to inhibition of calcium release into the muscle cell.

MONITORING

Monitoring should include: (1) temperature, (2) EKG, (3) arterial line for blood gases and electrolytes, (4) urinary output, and (5) central venous pressure.

Following successful initial therapy, late complications that may occur are: (1) disseminated intravascular coagulopathy, (2) acute renal failure from myoglobinemia, (3) inadvertent hypothermia due to vigorous cooling, (4) pulmonary edema, (5) skeletal muscle swelling from local hypoxia and acidosis, and (6) neurologic sequelae such as paraplegia and decerebration.

Anesthetic management of known or susceptible patients can be accomplished with neuroleptanalgesia or a combination of barbiturates, nitrous oxide, and narcotics. This was employed successfully in about 500 such patients. Ketamine has been used successfully in about 10 cases. When applicable, regional anesthesia employing local anesthetics of the ester type (procaine, pontocaine) may also be used.

In conclusion, malignant hyperthermia is a rare complication of anesthesia and surgery causing fever and tachycardia. Once diagnosed, it must be treated immediately and vigorously or death will result.

ACKNOWLEDGMENT

The author wishes to thank S. D. Gergis, M.D., for his review of this paper and for his helpful suggestions.

REFERENCES

The references noted in this paper may be obtained either from the author or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

The Iowa Statewide Perinatal Care Program

HERMAN A. HEIN, M.D.

Iowa City

This status report on the Statewide Perinatal Program indicates significant progress has been made. It has been a cooperative venture of the University, the State Department of Health and the private sector.

THE STATEWIDE PERINATAL CARE Program began in 1973 with the goal of making quality perinatal services available to all Iowa residents through a stratified and regionalized system of care.

The program was planned originally by representatives of the Iowa Regional Medical Program, the University of Iowa College of Medicine, the Iowa State Health Department, and private physicians interested in improving perinatal health care. Initial funding was provided by IRMP. The regional medical programs were phased out in 1973 and since then, the program has been supported by the Maternal and Child Health Division of the Iowa State Health Department, the National Foundation—March of Dimes, and the University of Iowa.

The original perinatal team consisted of a pediatrician-neonatologist and two nurse clinicians (obstetric and neonatal). In 1975, an obstetrician was added to complete the current team.

Three basic objectives were formulated to guide the program activities. The following is a description of these objectives and the activities conducted to implement each of them.

1) To improve basic perinatal care in all Iowa hospitals delivering and caring for babies. The

The author is an associate professor in the Department of Pediatrics at the University of Iowa Hospitals and Clinics. Dr. Hein is director of the Iowa Statewide Perinatal Care Program.

perinatal team regarded as its major goal the improvement of basic perinatal services across the state. An individual hospital visitation program was conducted to include each hospital with a maternity service. The visit was made by the director and/or the nurse clinicians. Perinatal care in the hospital was assessed with recommendations made to enhance the existing program and to correct identified deficiencies. Three months or more following this effort, a survey was conducted to determine the effect of the educational programs. The results^{1, 2} demonstrated a remarkable improvement in Iowa perinatal care practices.

The Perinatal Care Team is currently completing Phase II of its educational programs for Level I hospitals and has been emphasizing prenatal care and infant resuscitation. Educational programs have been conducted for small groups of hospitals.

Phase III will return to the format of individual hospital assessments with emphasis on problem oriented medical education.

2) To develop a system of regionalized perinatal care centers across the state. Traditionally, regional perinatal care centers have been viewed as tertiary care centers. This view results from perinatologists working primarily in urban areas where population density is high and time/distance factors are not a major concern. In rural areas, such as Iowa, it is not possible to make tertiary level services equally accessible to all patients. However, it is necessary to provide support for Level I facilities on a regional basis. Thus we chose to develop regional Level II centers in cities that have served as referral centers for Iowa physicians over the years.

By and large, the Level II centers have been developed with private and local resources. It should be noted, however, the Maternal and

PRIMARY REFERRAL AREAS OF PERINATAL CENTERS

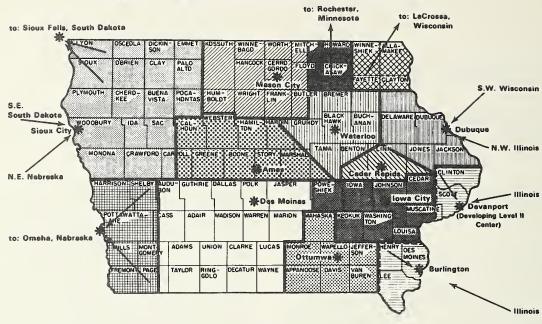


Figure 1

Child Health Division of the Iowa State Health Department provided funds initially to train physicians and nurses working in the Level II centers. More recently, the Department has provided funds to furnish modern neonatal transport devices for each of the centers. Figure 1 shows the naturally occurring referral areas of each of the centers.

The University of Iowa is the only tertiary center in the state, but Blank Children's Hospital (Iowa Methodist Medical Center) in Des Moines is rapidly approaching such a classification.

All regional perinatal centers have ground transport for high risk neonatal transfer and several have fixed wing and helicopter transport capabilities to Level III facilities.

Physicians and nurses in the regional centers have been providing perinatal educational experiences for Level I personnel in their referral areas. This has been accomplished variously: (1) by visits to the Level I hospitals, (2) by bringing Level I personnel to the regional center for practical experiences, and (3) through more formal regional educational programs.

LEVELS DESCRIBED

Each Level II center has the capability to provide high risk obstetric and neonatal care for the majority of perinatal patients, but upon occasion must refer extremely high risk problems to a ter-

tiary level center such as the University of Iowa. In each case, Level I transfer to Level II or III or Level II to Level III, an attempt is made to return the patient to the care of the referring physician as soon as possible.

Physicians and nurses in the Level II centers are visited every three to six months by the perinatal team. The team spends a day in each center making patient rounds, reviewing records and presenting problem oriented educational programs to keep the Level II staff informed of current obstetric and neonatal practices. Additional educational efforts directed at Level II personnel will be described in the section pertaining to the third objective.

3) To insure a high quality of perinatal care in the regional centers by developing educational and care relationships with the tertiary center at the University of Iowa. While it is easy to generate arguments for a regional system that utilizes Level II centers rather than tertiary centers in rural areas, there is no excuse for a compromise in the quality of care the perinatal patient is offered. As previously noted, the team visits the Level II centers regularly to help maintain currency in perinatal practices. Furthermore, the University of Iowa provides a demonstration center to offer practical perinatal experiences to physicians and nurses in the regional centers. Small groups of nurses and/or physicians spend up to a week at the

University to obtain practical as well as didactic training in perinatal care.

Also, the University Departments of Obstetrics and Pediatrics maintain 24-hour-a-day consultation service to Iowa physicians. For example, the neonatal division of the pediatrics department maintains a "neonatal hot-line" available to Level II pediatricians requiring consultation on high risk neonates. A staff member of the neonatal division is available at all times for immediate consultation.*

PERSONNEL AND CENTRAL OFFICE FUNCTIONS

The author, a pediatrician-neonatologist, is the director of the program. The obstetric consultant is Frank Zlatnik, M.D. In 1978, Dwight Cruikshank, M.D., will share the obstetric consultant's duties with Dr. Zlatnik. Norma Ferguson, R.N. (obstetrics) and Jane Lundvall, R.N. (neonatal) are the nurse clinicians completing the perinatal team.

The central office for the Statewide Perinatal Care Program at the University (telephone no.: 319-356-2637) has served as a clearinghouse for Iowa perinatal activities for the past five years. The director and nurse clinicians can be reached at the central office and the obstetric consultant (Dr. Zlatnik) can be reached at 319-356-3617.

The team maintains a file of current literature which is available to Iowa perinatal professionals at no charge. The members of the team are also available to provide educational programs upon request. We also maintain current files of equipment and educational opportunities in the midwest. Consultation on any issue referable to perinatal health care is available.

GUIDELINES FOR PERINATAL CARE (LEVELS I, II, AND III)

Public Law 93-641 (National Health Planning Act of 1974) requires that each health systems agency develop planning documents for health care. Early planning guidelines (since modified and made more flexible) issued by the Department of Health, Education, and Welfare included a recommendation that obstetric units in nonmetropolitan areas should deliver at least 500 babies annually. Even though a time-distance exception was noted for this recommendation, the majority of Iowa's rural hospitals would not be in compliance. In 1976, 82% of Iowa's hospitals with

an obstetric unit had less than 500 deliveries annually. Obviously, the import of such guidelines to perinatal care in Iowa would be significant.

In 1976, the Committee on Perinatal Health, consisting of participants representing the American Academy of Family Practice, the American Academy of Pediatrics, the American College of Obstetrics and Gynecology, and the American Medical Association published planning guidelines for perinatal health care. Although these guidelines are less restrictive than those issued by HEW, nonetheless they do not specifically relate to rural perinatal needs.

TABLE 1

IOWA PERINATAL MORTALITY RATES 1972-1976

(PER 1000 LIVE BIRTHS)

		Neanatal	Perinatal
1972	10.4	13.2	23.4
1973	9.3	11.3	20.5
1974	10.4	10.8	21.0
1975	8.6	9.8	18.3
1976*	8.5	9.2	17.5

Data supplied by lawa State Health Dept.

* Pravisianal data.

Recognizing the importance of generating guidelines applicable to Iowa's needs, the Iowa State Health Department formed a committee of perinatal health care professionals to generate practical guidelines. Representation on the committee was sought from established organizations related to perinatal care in Iowa.

The committee has met regularly over the past year and guidelines for all three levels of perinatal health care are now completed. "Grass roots" input has been solicited and when obtained, incorporated into the guidelines.

The development of perinatal guidelines specific to Iowa's needs is another example of the cooperative spirit that exists in the state among the private sector, the University and the Health Department.

COOPERATIVE NATURE OF THE PROGRAM

Judged by perinatal mortality statistics, perinatal outcome has steadily improved in Iowa over the past five years (Table 1). The dedication of Iowa physicians and nurses working in the Level II centers and the willingness of physicians and nurses working in Level I hospitals to assess risk status and refer patients when indicated, has allowed Iowa to enjoy a successful system of regionalized perinatal care. This system functions largely within the private sector, but would not be

^{*} The hot-line, unfortunately, cannot be used for patient admissions. The purpose of the hot-line is for consultation only. Calls to the University for the purpose of admitting a patient should be directed to the admitting officer in the department desired.

possible were it not for the support from the Iowa State Health Department and the University of Iowa.

The Statewide Perinatal Care Program in Iowa is a model program of rural regionalization that reflects the cooperative spirit that exists between the private sector, the University of Iowa, and the Iowa State Health Department. The federal

health planners would do well to observe the Iowa program of perinatal services in rural areas rather than to attempt to revolutionalize existing community obstetric facilities.

REFERENCES

- Hein, H. A., et al: Rural perinatology. Ped., 55:769-773.
 Hein, H. A.: Regionalization of perinatal care in rural areas based on the Iowa experience. Seminars in Perinatology, 1:241-254.

and emergency medical service. IMS-opposed bills which failed to prevail included the use of diagnostic drugs by optometrists, employment of

See In the Public Interest (page 196) for additional comments on the Legislative Session.

radiologists/pathologists, use of Laetrile, a statutory patients' bill of rights, ownership of professional records and prescription authority to physician's assistants.

MEDICAL MISCELLANY

ASSEMBLY ADJOURNS . . . The 1978 session of the Iowa General Assembly recessed May 13. Health matters were limited in number during the four-month legislative period. The lawmakers approved adequate appropriations for Medicaid, the Family Practice Residency Program and the Board of Medical Examiners. Society-backed proposals were passed in areas of radiation safety

1978 HOUSE ACTIONS . . . IMS House of Delegates' actions included: Nursing Homesrecognized nursing home care in Iowa as generally good; favored new facilities where needed; also reaffirmed previous Executive Council actions supporting (a) realistic reimbursement for nursing and custodial homes, (b) prudent use of health care personnel, (c) combining of governmental inspections to foster economy and efficiency, (d) greater physician understanding of the nursing and custodial home program through educational activity, and (e) physician follow-up of nursing home orders, together with an annual physical examination to be paid for adequately by government where it is responsible. Physician Extenders-directed the IMS to actively seek to limit physician's assistants and family nurse practitioners to the same facility where the physician is in attendance; in this connection, the House stressed quality care in all consideration of where and how the duties of the physician extender are performed and asked that any abuse noted by county medical societies be reported to the Board of Medical Examiners and the Iowa Medical Society; further the Committee on Delivery of Health Services is to follow the subject and report to the House or Executive Council as appropriate. *Iowa* Foundation for Medical Care-rejected an IFMC

request for IMS financial assistance in doing private fee review; supported the premise that acute care patients should have IFMC-monitored quality review programs available to them. Professional Liability-reaffirmed support for IMS/ Aetna liability insurance program and urged continued effort to increase member understanding participation. IMS Organizational Structure-requested the special ad hoc committee to continue its work and report its findings; Blue Shield-suggested that Blue Shield explore the feasibility of a one screen procedure for UCR claim handling similar to system used by Minnesota Blue Shield. Hospital Eligibility Under Medicare-requested national contacts to change Medicare rules to allow patients in a skilled nursing facility, or under certain other conditions, to reaccumulate 60 days of acute care coverage. Statute of Limitations for Minors-referred the matter to the Legislative Committee with a recommendation that legislation be supported to make statute of limitations uniform regardless of age. Health Delivery-In considering a resolution to reject HMO development, the House asked continued scrutiny of all alternate proposals in delivering health care. Dues-approved 1979 membership dues at present level of \$275. A more complete summary will appear in July.

An Opinion Poll On Over the Counter Drugs

REUBEN B. WIDMER, M.D.

Iowa City, Iowa

THE RESULTS OF a survey of family physicians, practicing pharmacists and consumers regarding over-the-counter (OTC) medications are interesting.

The majority of both professional groups and the consumers believe the pharmacist should give more advice about OTC drugs to consumers, but a minority of consumers seek him out for such information. This could be the consequence of his unavailability where OTC drugs are displayed for sale.

The type of OTC advertising brings up the question: Is more government and industry control desirable or is it inevitable?

There is a disagreement between physicians and pharmacists as to which OTC drug used by the consumer causes the most problems.

Americans purchase \$2.8 billion in over-the-counter drugs annually. There has been concern among physicians and pharmacists as to the public's increasing drug orientation. This opinion poll was undertaken to determine attitudes of physicians, pharmacists and consumers concerning the use of OTC drugs in general, and the role of the pharmacist in dispensing them. Fourteen questions were used. Six questions were considered appropriate for all three groups. Four other questions were directed toward the physicians and pharmacists only. The last four questions were aimed at consumers.

Questionnaires on OTC drugs were sent to 100

Dr. Widmer is an associate professor in the Department of Family Practice at the University of Iowa College of Medicine.

A comparison of the attitudes of physicians, pharmacists and consumers about the regulation and dispensing of over the counter drugs (OTC) and the role of the pharmacist in the delivery of primary health care.

members of the Iowa Academy of Family Physicians picked at random, statewide. Sixty-one responded. The same questionnaire was given to a group of pharmacists at a meeting of the Iowa Pharmaceutical Association. Sixty-three responded. Fifty-two consumers in the Iowa City area were queried with 100% response.*

The questions will be given here with the answers in percentage figures. Where necessary, comments will be made after the question.

1. Should a pharmacist advise a patient who asks for OTC drugs as to which medication to use far a minor camplaint?

	Always	Never	On Occasian
Physicians	. 21.3	9.8	68.9
Pharmacists	. 63.5	1.6	34.9
Cansumers	. 42.3	5.8	52.0

2. Is it the pharmacist's duty to warn patients of passible side effects of certain OTC drugs?

	Yes	Na	Sametimes
Physicians	75.4	23.0	1.6
Pharmacists	98.4	1.6	
Cansumers	94.2	5.8	

The physicians, pharmacists and consumers strongly favored the retail pharmacist warning the consumer of the bad effects of a given drug (see question two), but a smaller percentage of all groups strongly supported him telling the consumer the favorable effects of these drugs for a specific complaint. This might be understandable considering the paranoia physicians have about prescribing by retail pharmacists, but why the difference in the answers of the consumers?

^{*} The results were presented at a symposium on OTC drugs sponsored by the College of Pharmacy, University of Iowa.

3. Do you feel that OTC medications should cantinue to be available in outlets when cansultation with a pharmocist is not available? (i.e. gos stations, supermarkets, etc.)

	Yes	No	Sametimes	No Opinian
Physicions	19.8	67.2	13.1	1.6
Phormocists	27.0	70.0	3.0	
Consumers	48.0	50.0		2.0

It is interesting to note that 94% of the consumers in question two felt the pharmacist should give some measure of advice, yet 48% desire the convenience of buying OTC drugs in supermarkets and gas stations where there often is no pharmacist.

4. Should the pharmacist hove more training in school to recognize certain minor ills and how to prescribe OTC drugs?

	Yes	Na	No Opinion
Physicions	16.4	77.0	7.6
Phormocists	86.0	12.7	1.3
Consumers	52.0	44.0	4.0

The answer to this question points out a divergence of opinion concerning the pharmacist's role in the delivery of health care.

In question one, 90% of the physicians said some measure of advice should be given consumers on OTC drugs by pharmacists, but 77% are against increasing the training of the pharmacist to the point of diagnosing minor ills and prescribing OTC drugs (question four). On the other hand, 86% of the pharmacists believe a change in the training program for pharmacy students should be made to afford a more meaningful role in the health care delivery process (see question 4). In question four the consumers are ambivalent.

The concern of the physician over the prescribing of medications by a pharmacist exists and, unfortunately, a times it is well founded. The possibility of a conflict of interest in such a situation is now implied by physicians, an old accusation often leveled at dispensing physicians.

- Which statement most closely conforms to your apinion on the topic of the promation of OTC drugs to the public. (Circle the oppropriate response.)
 - o. Generally occurate and promotes their proper use to the public.
 - b. Misleoding and may not pramate their proper use to the public.
 - Often misleoding, inaccurate, insulting and should be more closely controlled.
 - d. Na apinion.

Α	В	С	D
Physicions 5.0	36.0	49.2	9.8
Phormocists 17.5	28.6	50.8	3.1

Eighty-five per cent of physicians had little faith in the advertising claims with 79% of the pharmacists joining them.

6. Should the monufocturer of OTC's be required to put possible side effects and incompotabilities on the labels?

	Yes	No
Physicions	98.4	1.6
Pharmacists	92.1	3.9
Consumers	98.1	1.9

7. Should the FDA have more stringent regulations for OTC medications?

	Yes	No	Na Opinion
Physicions	. 67.0	24.6	8.4
Phormocists	. 76.2	19.0	4.8
Consumers	. 69.2	21.2	9.6

Questions six and seven both deal with compulsory regulations and all three groups favor increased regulatory controls. Ninety-two to 98% of all those in question six favored more information on the label, but about 30% less in each group (in question seven) favored FDA control. This difference between yes answers could indicate a general distrust of FDA or perhaps of government controls in general.

A comparison of questions six and two shows all three groups favor more information concerning side effects whether by label or professional advice.

8. Do you feel that Schedule V cough syrups (Cherocol with codeine) should continue to be ovailable over the counter?

	Yes	Na	Na Opinian
Physicions	55.8	41.0	3.2
Phormocists	66.7	31.7	1.6

9. Which OTC's now ovoilable do you consider the most dangerous?

	Physicians 2	Phormocisi
Sleeping oids	28.0	9.5
Cold preps	21.0	33.0
Aspirin ond onolgesics	18.0	14.0
Closs V cough syrups	6.6	11.0

- 10. Which closs of OTC drugs have given you the most problems or created the most problems for your potrons. (Please list in order of importance from 0-6 with six being the greatest problem maker.)
- (o) Antihistamines
- (c) Loxotives
- (b) Cough Syrup
- (d) Somnifocients
- (e) GI remedies (ontacids, antisposmodics)
- (f) Analgesics

Sleeping aids were viewed with the most alarm by physicians. Cold preparations were considered most dangerous by pharmacists.

The next four questions were asked of the consumers only.

11. Do you usually ask the phormacist about the OTC medication you have decided to buy?

	Yes	No	Sometimes
Consumers	 . 34.6	63.5	1.9

12. Do yau usually have an idea of what yau will buy before you ga to the drug store?

	Yes	No	Sometimes	No Opinion
Consumers	80.8	9.6	7.7	1.9

13. Or do you ask the phormacist which medication to buy?

	Yes	No	Sometimes I	No Opinion
Consumers	 19.2	63.5	13.5	3.8

Most consumers in their answers to questions 11, 12 and 13 feel the pharmacist should offer more advice, but in question twelve, 88% usually have their mind made up. Only about 35% actually ask for *any* advice. This may be a reflection of the pharmacist's availability.

14. When you buy OTC drugs, do you usually read the entire label?

	Yes	No	Sometimes	No Opinion
Consumers	 73.1	23.1	1.9	1.9

Seventy-five per cent said they usually read the entire label on OTC medications while 23% said they did not.

The consumers' answers generally indicate an attitude that the retail pharmacist is a merchant rather than a health professional. They will ask for advice when convenient much as they would ask a clerk in any store. This attitude of the consumer is unfortunate considering the good professional education the pharmacist has in all facets of drugs. They should all be experts in drug actions, dosages, adverse reactions and interactions. To change these attitudes will certainly take patient education. The responsibility for this education campaign rests primarily upon the pharmacy profession with generous help from other health professionals.

This opinion poll was not intended to establish any conclusion, but rather to document the opinions of the three groups queried. The poll identifies areas and questions that need additional definitive study following a well planned and organized format. The following questions merit further evaluation.

- 1. What can or should the role of the retail pharmacist be in the delivery of health care?
- 2. Can a College of Pharmacy develop a curriculum to produce a pharmacist to meet the expectations of our society and the health care delivery team?
- 3. Should the retail pharmacist of today be out in "front" at the pharmacy where consumers will be encouraged to ask pertinent questions about OTC's? If he is, would this be a good argument that all OTC medications should be for sale in pharmacies only?
- 4. In the light of modern pharmaceutical technology, can the retail pharmacist be relieved

- of the pill counting and label sticking tasks, thereby taking on a more supervisory role that would make him more available for professional consultation with the consumer?
- 5. Is there a significant credibility gap between OTC drug advertising and the facts as health professionals see them? Could this spur the proprietary pharmaceutical industry to greater self-regulations?
- 6. Could the credibility gap indicated by this poll generate more government control with its problems and increased bureaucratic costs?
- 7. Is there any way to educate the public to the dangers of being increasingly drug dependent?
- 8. Our society must be made aware of the complexity of modern drug reactions and interactions. Can we educate the public to rely on well trained professionals for advice concerning these drugs, OTC and prescription?
- 9. Could there be a conflict of interests in the retail pharmacist's advice concerning the purchase of certain OTC medications?

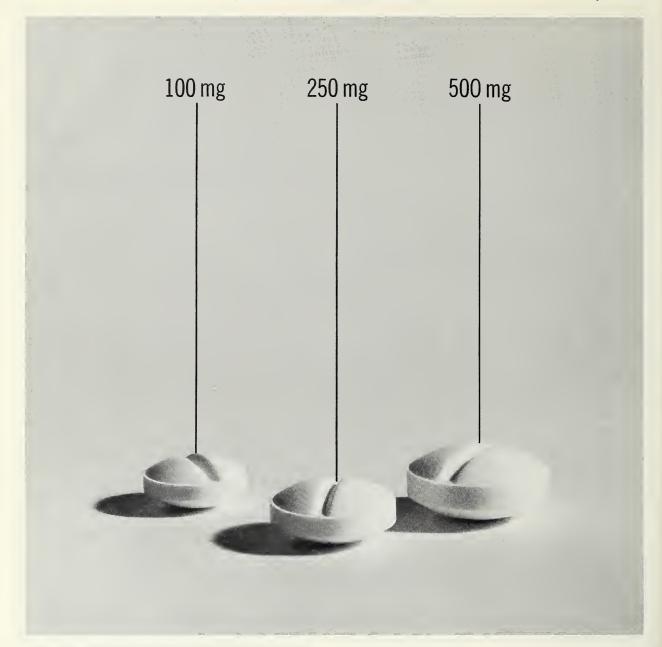


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M. E. ALBERTS, M.D., Scientific Editor

RECOGNITION AND CHANGE

It has been a custom of the JOURNAL to devote the entire July issue to reports from various Society committees, as well as the House of Delegates annual proceedings. This year we break away from that tradition.

In lieu thereof, we will offer a more-or-less regular issue with scientific essays as well as the ongoing reports and items of interest. We believe this approach will appeal to a greater number of Society members. We sincerely hope the change will be regarded as appropriate.

The reports of committees as well as the proceedings of the House of Delegates will still be available to interested persons. And we expect to include in the July JOURNAL a reasonably complete summary of the actions taken in May by the 1978 House of Delegates.

It is our desire to provide an excellent JOUR-NAL, one that is acceptable and useful to the majority of the members. The recent judgment by a panel of journalism experts for the Sandoz Corporation seems to attest to our worth. This year we competed with journals of the larger state medical societies because our circulation has gone over 3,000. We were not the top journal (as in 1976 in the smaller circulation category) but nevertheless we received honorable mention. We have been presented a framed certificate in recognition of this selection.

We believe this speaks well for our efforts on the behalf of our physician readers. Other societies have more funds at their disposal to create excellent journals. We strive to provide a worthwhile journal with a comparatively austere budget. For the recognition received we are proud, and we sincerely hope our readers approve of our actions.

UTILIZATION REVIEW—ALL FOR ONE AND ONE FOR ALL

It is required that care provided Medicare and Medicaid patients be evaluated as to (a) medical necessity, and (b) appropriateness of the level of care. Level of care review and grace period review, which until recently have been the responsibility of the fiscal intermediary, are now in the PSRO domain. PSRO delegated hospitals are charged with performing these quality and utilization reviews. They are to be accomplished in accordance with Federal regulations, and must follow specific criteria so that certification and reimbursement will be available for the services provided. The three major areas of concern in these

reviews are (1) the medical necessity of services, (2) the quality of such services, and (3) the appropriateness of the level of care at which these services are rendered.

The procedures to be followed in the review are specific. The utilization review committee determines the fulfillment of the criteria. The attending physician must be notified and must agree that proper utilization has occurred. If he is in agreement, implementation of the notification to the patient must be within 24 hours.

A grace period of up to 3 days may be considered, but regulations imply that discharge plans for the patient should be initiated early enough to preclude the need for a grace period. Three major criteria govern the granting of a 2 or 3 day grace period: (1) inclement weather sufficiently severe

that travel by the patient would be unsafe or inadvisable; (2) a destructive act of nature exists (tornado, fire, etc.) such that transfer of the patient would be unsafe or inadvisable, and (3) a personal tragedy or unexpected situation exists in the family such as would result in their inavailability to transfer the patient.

These regulations do not provide special criteria for deviation from the utilization review mechanisms because of special requests, or the social or political station of the patient. Furthermore, I cannot find a provision wherein a hospital administrator may overrule the decisions of the utilization review body when the criteria are met.

The Iowa Foundation for Medical Care or one of its delegated hospital utilization review committees are responsible for making review deter-

minations as to a particular level of care under requirements and stipulations set forth in the Medicare/Medicaid laws, their regulations, and pertinent guidelines. The law precludes payment for covered levels of care where the reason for such care is based on other than medical need. Consequently, non-medical reasons, such as convenience to the patient, the family, the attending physician, or for administrative reasons, are not valid. This is regardless of the patient's ability to enlist the aid of newspapers or politicians. If those who write the laws and regulations, as well as those who are responsible for their administration, neither accept nor abide by their mandates, changes might be indicated. Until such time as changes are made the same criteria must apply to all persons.—M.E.A.

BRAIN POWER

The immense body of knowledge which has emerged in medicine over the past 25-30 years is great enough to boggle the mind. Thirty years ago I graduated from medical school possessing a medical education commensurate with the time. The medicine practiced at that time is antiquated when compared to our contemporary application of physiology, biochemistry, surgery and materia medica.

Recently I read an article which said if knowledge continues to expand at its present rate, by the time a child born today graduated from college the sum total of knowledge in the world will have increased four fold. It is estimated 50 years from now knowledge will have increased 32 times, and 97 per cent of everything known in the world will have been learned in this half century.

How will the human brain acquire and retain all this knowledge? It is nearly impossible to comprehend the immense complexity of this information overload.

We health science professionals are faced with ever-increasing demands to keep up-to-date in all areas of endeavors. Our continuing education must be of an ever-increasing magnitude if we are to keep stride. Our profession has acted in an efficient manner to develop incentives to maintain proficiency.

Someone calculated the average person is bombarded with 40,000 or more words a day through all types of communication—written,

television, radio and personal communication. A program of continuing education would add more. If the onslaught becomes greater than the usual range, the stress placed upon the individual becomes overwhelming and apathy may result. Experiments have demonstrated that overstimulation of the senses can result in confusion. This may imply we should not try to learn too much at a time. Such is not the case. We can be selective in our exposure to the best of our abilities—some more and some less.

Our continuing medical education requirements are not too stringent to be a burden on anyone. Some will attain many more hours of CME than required and others will "get by" on the minimum requirements and each in his/her own way will be happy with the end result. Because educational programming is accelerating at such a rate we need to be selective in our reception of information. We need to pursue additional knowledge to a comfortable saturation point and maintain happiness without undue mental stress. Furthermore, we must be both selective and diversified in our choices so we can maintain interest in other facets of culture—rather than finding it impossible to be interested in anything but medicine.

Life must be full for it is all too short for us to become overburdened victims of a cloistered existence. Continuing medical education might well be broadened to include studies in the humanities, arts and theology. These subjects could be considered alone or as they pertain to our profession.—M.E.A.

Your malpractice insurance is no place to gamble



State Department of Health

IMMUNIZATION COMPLIANCE

The compulsory immunization law was passed late in the 1977 session of the Iowa General Assembly. Logistical and administrative considerations pushed enforcement of this important legislation back until January, 1978. To measure the early impact of the law, the Iowa State Department of Health surveyed 10% of Iowa schools and day-care centers in February, 1978. These facilities were selected randomly and without regard to location or type of school (elementary or secondary, public or private). A total of 58,624 immunization records were reviewed in the 227 schools and day-care centers surveyed.

The survey revealed that 99.9% of all Iowa school children are in compliance with the law.

Day-care center results were equally encouraging. They indicated 97% of the children meet the requirement of the law. Further analysis indicates that 93.1% of all Iowa school children have completed all the required immunizations, while 6.4% are "in process" of receiving the required immunizations, and only 0.3% have filed exemptions.

Other data also demonstrate the successful implementation of the law. The quantity of vaccine supplied by the Iowa State Department of Health increased dramatically during 1977. For instance, measles vaccine output increased 1,522%, rubella 691%, DTP-Td 507%, and poliomyelitis vaccine increased 421%. Immunization levels have likewise shown a dramatic improvement. In kindergarten children adequate doses of DTP have been administered to 93% of the children as compared with 83.9% the previous year; similar in-

Dear Doctor:

Implementation of lowa's mandatory immunization law has been an arduous task in which physicians have played a key role by updating immunization records and administering vaccine to thousands of school children. I am certain these activities required you and your staff to spend many extra hours on the job. Without your sustained efforts, compliance would have been impossible, and the children of this state would have remained inadequately immunized and susceptible to these preventable diseases.

The impact of this legislation, sponsored in part by the Committee on Maternal and Child Health Committee of the Iowa Medical Society, is already evident. Reported measles, for instance, had decreased to just 21 cases as of April 30. It is quite likely that in just the last few months Iowa has taken a big step toward eliminating vaccine-preventable diseases in the school setting. Publicity regarding the law undoubtedly will encourage parents to be equally responsible in acquiring immunizations for their preschool youngsters as well.

I believe that no preventive medicine activity surpasses immunization in terms of ensuring health, along with being easy to administer, having minimal side-effects and presenting a most favorable cost/benefit ratio. I am especially grateful for your assistance and express my sincere thanks to you and your staff for your individual contributions and general support of this program.

With best wishes and kindest regards.

Sincerely, Norman L. Pawlewski Commissioner of Public Health

TABLE I

	Per Cent
Schaol nurses	47.2
Private physicians	34.4
Public health persannel	18.4

creases were noted for polio (from 83.4% to 93%), measles (from 84.1% to 97.9%) and rubella (from 82.5% to 97.9%).

In other analyses, school nurses validated 47.2% of the immunization certificates; private physicians signed 34.4%, and public health personnel certified 18.4%.

The ultimate measure of the law's success will be in reduced morbidity from the diseases covered by it. Although it may be some time before the change can be assessed adequately, the morbidity for 1978 has lessened noticeably. A total of 21 cases of measles, and 19 cases of rubella were reported for the first four months of 1978, as compared with an average of 648 cases of measles and 316 cases of rubella, for corresponding periods in each year from 1970 to 1977.

MEDICAL CONSULTANT/IOWA DEPARTMENT OF SOCIAL SERVICES

An exciting new opportunity in a progressive state government organization. Full-time medical consultant for the lowa Department of Social Services. Applicant must be a graduate of an accredited medical school and should possess an lowa license. Consultant must oversee the full spectrum of medical services delivered through the Department's various facilities—plus the medical programs, such as Medicaid, administered by the Department. Prefer applicants with practice experience and strong social concern. Salary range is from \$33,046-\$46,540. Paid vacation, liberal policy for short course attendance, accident and health insurance, life insurance and retirement benefits.



If interested please contact Elmer M. Smith, M.D., Medical Consultant, Lucas State Office Building, Des Moines, Iowa 50319 (Telephone 515-281-8796)



April 1978 Morbidity Report

April	1978	1977	Mast April Cases
	fa	fa	Reparted Fram
Tatal	Date	Date	These Caunties
3	59	25	Baane, Palk
3	4	4	Tama, Waadbury
1201	3744	6433	Scattered
256	566	1333	Scattered
1	3	2	Scatt
23	33	35	Butler, Hamilton, Pattawattamie,
			Waadbury
			Scattered
-			Baane, Dallas
			Scattered
			Scattered
-		7	Scattered
	•	_	Baane
			Scattered
			Scattered
4	172	65	Jahnsan, Linn, Palk
2855	35704	38311	Scattered
1	2	1	Dubuque
1	6	4	Dubuque
24	91	1144	Scattered
102	242	114	Scattered
5	10	20	Franklin, Palk
312	1126	450	Scattered
10	47	25	Scattered
7	18	22	Scattered
40	106	152	Scattered
5	10	4	Dubuque, Lee
5	19	122	Palk, Scatt
11	21	2773	Buchanan
140	498	483	Scattered
901	4372	6782	Scattered
12	40	30	Scattered
9	29	23	Scattered
337	1513	1898	Scattered
3	13	N/A	Marshall, Palk
23	70	131	Scattered
	1978 Tatal 3 3 1201 256 1 23 1106 4 16 8 7 1 79 131 4 2855 1 1 24 102 5 312 10 7 40 5 5 11 140 901 12 9 337 3	1978 to Tatal Date 3 59 3 4 1201 3744 256 566 1 3 23 33 1106 11396 4 10 16 53 8 36 7 23 1 4 79 341 131 426 4 172 2855 35704 1 2 1 6 24 91 102 242 5 10 312 1126 10 47 7 18 40 106 5 10 5 19 11 21 140 498 901 4372 12 40 9 29 337 1513 3 13	1978 ta ta Tatal Date Date 3 59 25 3 4 4 1201 3744 6433 256 566 1333 1 3 2 23 33 35 1106 11396 14547 4 10 24 16 53 32 8 36 33 7 23 7 1 4 — 79 341 300 131 426 545 4 172 65 2855 35704 38311 1 2 1 4 172 65 2855 35704 38311 1 2 1 4 9 1144 102 242 114 5 10 20 312 <

Labaratary Virus Diagnasis Without Specified Clinical Syndrame Cytamegalavirus—1, Eatan's Agent infection—4, and Herpes simplex—9. N/A—Information nat available.

Librax°

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis. Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

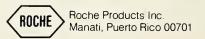
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCI is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCI, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



Educationally Speaking



by R. M. CAPLAN, M.D.

WATSON, HOLMES AND CME

In the last column I related my prolonged Amtrak adventure. But I didn't describe one of the benefits: the opportunity to begin the re-reading of The Complete Sherlock Holmes. Apart from the romantic flavor of the plots, and the intriguing eccentricities of Holmes, the stories have remained always in my mind because of Holmes' attention to minute details and his ability to deduce glorious superstructures of reality from the most trivial observations.

But Holmes didn't seem to care much about people. Yes, he knew he was undoing the criminals and aiding the victims, and seemed to think that was the way one should behave. But what really ignited his passion was to solve a problem. His chiefest joy, clearly, was to embrace an intellectual challenge. He was, perhaps, "a little too scientific," in the assessment of young Dr. Stamford, who first introduced Watson to Holmes.

Now Watson was different. He had deep concern for his patients. He would even stay away for many hours on a house call. His was a genuine sympathy for the unfortunate and distressed who came to Baker Street to seek Holmes' help. Although intelligent, Watson had little imagination. He lacked the ability or willingness to note the details which might have made him an outstanding diagnostician. He was "good-hearted," certainly willing to try hard to help others: Holmes, Holmes' clients, and his own patients. Willing to work diligently and long, and even to take personal risks to aid others, Watson was an admirable gentleman (person), as any physician ought to be.

stories, seemed little concerned for his own continuing education. Not so Holmes! The man was a ravenous reader, investigator and seeker after

Watson, from what we know of him in the

knowledge. But he sought exclusively that knowledge that would make him more effective in his chosen work. He ignored huge areas of information, even some sciences such as astronomy. Why, he professed ignorance of the Copernican theory that placed the sun at the center of our solar system (A Study in Scarlet). But at our very first introduction to him he was exuberant at having "found a reagent which is precipitated by hemoglobin, and by nothing else," and recognized, in contrast to Watson, its extreme importance in forensic medicine.

Which of these characters, then, should be our model? If you served on an admissions committee for a medical school, and the number of places were limited, which type of applicant would you choose? A Holmes, a Watson, or a blend of the better features of the two? I'd strive for a few like Holmes, and if offered the opportunity for a blend, would totally avoid the pure Watson.

If you think I judge Holmes, Watson, or the nature of medical practice wrongly, tell me.

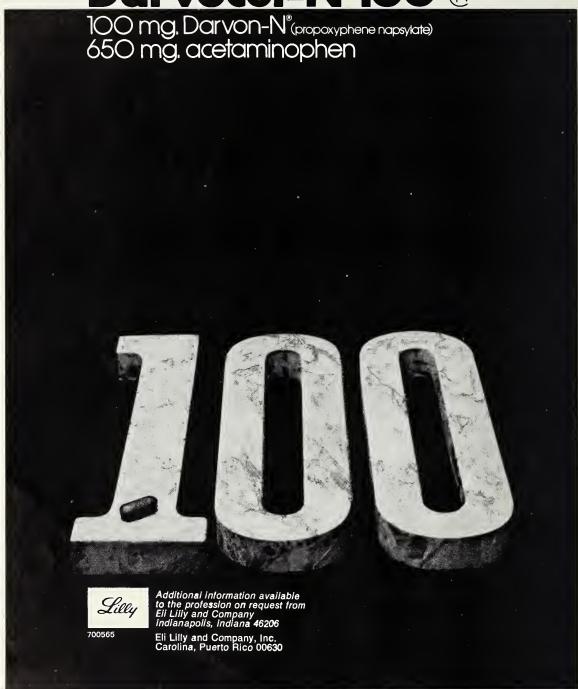
SPIDER BITE

The necrotizing bite of the brown recluse spider (Loxosceles reclusa) is being seen north of its Missouri habitat, now over much of Iowa and especially in the western counties. The bite often seems trivial, painless and may go unnoticed. However, it may become painful, hemorrhagic and necrotic over the next six hours. Occasionally, at about 12 hours, those bitten develop hemolysis and kidney injury from the venom, with rare episodes of intravascular coagulation. Information and reports are invited by P. C. Anderson, M.D., Professor and Chairman, Dermatology, University of Missouri Medical Center, Columbia, Missouri 65212.

Dr. Caplan is Associate Dean for Continuing Medical Education at The University of Iowa College of Medicine.

contains no aspirin

Darvocet-N° 100 (V



About IOWA Physicians

Dr. Jerry Kreiter, Clinton, was guest speaker at recent meeting of Explorer Scout Post 9622. Dr. Kreiter spoke on careers in medicine. . . . Dr. J. G. Kruml, Council Bluffs, retired April 1. . . . Dr. Homer Skinner, Carroll, moved to a new location in April. His new office is at 717 Highway 30 West. . . . Dr. William C. McCormack, Ames, spoke recently to the Ames American Legion Auxiliary. He discussed poison prevention among children. . . . Dr. John Hennessey, Manilla, Dr. John Hornberger, Manning, and Dr. K. L. Thompson, Oakland, were presented "Team Doctor Awards" at the 1978 Boys' State Basketball Tournament by the Iowa High School Athletic Association. . . . Dr. Braden Stevenson has joined the Gilfillan Clinic in Bloomfield. A native of Humboldt, Dr. Stevenson received the M.D. degree at U. of I. College of Medicine. His urology residency was at Hennepin County General Hospital in Minnesota. He has been in private practice in Waterloo for nine years. . . . Dr. Michael Stein, Des Moines neurologist, spoke recently to the Greater Des Moines Epilepsy Society. Dr. Stein spoke on "Epilepsy and the Mystery of Its Causes and Diagnoses." . . . Dr. Edward J. Hertko was elected president of the medical staff at Iowa Methodist Medical Center. Other officers are—Dr. Louis L. Maher, president-elect; and Dr. Robert L. Kollmorgen. secretary-treasurer. All are Des Moines physicians.

Drs. Douglas Vickstrom, Donald Heming, and Truce Ordona, Davenport physicians, recently participated in a local workshop for diabetics. Dr. Vickstrom discussed oral medication, Dr. Heming genetic counseling and the trauma of the diabetic mother during pregnancy, and Dr. Ordona lifelong management of diabetes, including emotional problems. . . . Dr. Arthur H. Downing, Des Moines, received the first E. T. Meredith, Jr., Award for distinguished service

from the Iowa Society for the Prevention of Blindness. Dr. Downing was the founder of the Society. The award was presented by F. C. Blodi, M.D., professor and head of the Department of Ophthalmology at the U. of I. College of Medicine. Dr. Downing is on the state and national boards and also serves as Polk County sight saving chairman. . . . Dr. Mark D. Ravreby, Des Moines, has been appointed to the medical advisory board of Farmland Industries, Inc., Kansas City, Missouri. . . . Dr. Larry Richard will join the Leon Clinic in July. Dr. Richard received the M.D. degree at U. of I. College of Medicine and completed his family practice residency at Broadlawns Hospital in Des Moines. . . . Two Davenport physicians, Dr. John Barker and Dr. William McCabe, participated in the 1978 Boston Marathon. Dr. Barker ran the famed Massachusetts course in 3 hours 15 minutes; Dr. McCabe, 3 hours and 57 minutes.

Dr. Richard Rubin has joined Dr. Anthony Colby in family practice in Iowa City. Dr. Rubin received the M.D. degree at U. of I. College of Medicine and had his family practice residency at University Hospitals. . . . Dr. Richard L. Sedlacek, Cedar Rapids, was named Boss of the Year recently by Triangle '64 Chapter of the American Business Women's Association. . . . Dr. Arthur Ames, Storm Lake, was guest speaker at a recent meeting of the Hy-noon Kiwanis Club in Storm Lake. Dr. Ames summarized common medical symptoms, their diagnoses and treatment. . . . Dr. Henry Kosieradzki, Marshalltown, has been named president of the Iowa Psychiatric Society. Dr. Kosieradzki is director of the Mental Health Center in Marshalltown. . . . Dr. Braden Stevenson, formerly of Waterloo, has joined the Gilfillan Clinic in Bloomfield. Dr. Stevenson received the M.D. degree at U. of I. College of Medicine and completed his urology residency at Hennepin County General Hospital

WANTED

General Internists and Family Physicians. Progressive geriatric institution, located in a park-like setting of a pleasant city of 27,000, invites applications for staff positions. Veterans, their spouses and surviving spouses, numbering 650 and increasing to over 700 by 1980, are offered medical care and rehabilitation. Included are ambulatory, infirmary ill, and long-term hospital type care patients with multiple diseases. Completed in January, 1978, the newest building of 360 beds is modern in every respect. Construction is starting on another 180 beds.

Strong ancillary and paramedical staffs work well in cooperation. Social Service, Activities, Occupational, Physical, and Speech Therapy, Pharmacy, X-ray, Clinical Pathology Departments and Nursing are well established.

Based on training and experience, salaries and benefits are competitive. Send curriculum vitae to Director of Medical Care, S. C. Werch, M.D., F.A.C.P., Iowa Veterans Home, Marshalltown, Iowa 50158. An equal opportunity employer.

in Minneapolis, Minnesota. . . . Dr. Jaun Caceres-Morgan will join the Gilfillan Clinic in July. A Peruvian, Dr. Caceres received his medical education at National University of Peru; interned at Ellis Hospital in Schenectady, New York and served his residency in obstetrics and gynecology at Lincoln Hospital, Albert Einstein College of Medicine, and Misericordia Hospitals in New York City.

A street in Oakland, Iowa, recently was named "Dr. Thompson Avenue," honoring longtime Oakland physician, Dr. Kenneth L. Thompson. ... Dr. F. C. Brush, Mason City, was guest speaker at recent meeting of the Mason City Chapter, American Association of Medical Assistants. Dr. Brush spoke on the Hope program. . . . Dr. Arnis Grundberg, Des Moines, spoke at the April meeting of the Wright County Medical Society. Dr. Grundberg covered new developments in hand surgery. . . . Randy H. Kardon, Des Moines, junior medical student at U. of I. College of Medicine, was awarded first place in the 20th Annual American Medical Student Association-Eaton Medical Art Award competition. He won in the open division of electron photomicrography... Dr. Lloyd J. Filer, Mead

Johnson professor of pediatric nutrition at U. of I. College of Medicine, will receive the Joseph B. Goldberger Award in Clinical Nutrition at the AMA meeting in St. Louis in June. . . . Two U. of I. College of medicine faculty members, Dr. James Clifton, Carver professor of internal medicine, and Dr. Lewis E. January, professor of internal medicine, were named "Masters of the College" at the annual meeting of the American College of Physicians in Boston, Massachusetts.

DEATHS

Dr. Edward S. Murray, 69, Cambridge, Massachusetts, professor of microbiology at Harvard University School of Public Health, died March 26 at Massachusetts General Hospital. A Cedar Rapids native, Dr. Murray was graduated magna cum laude from Coe in 1930 and received the M.D. degree at U. of I. College of Medicine in 1938. During World War II, Dr. Murray served with the armed forces typhus commission. He was noted for his work in controlling typhus in Turkey, Yugoslavia and Egypt and received the Yugoslavia Medal for Service and the United States Typhus Commission medal. In 1947 he joined in founding a new department of microbiology at Harvard School of Public Health. Dr. Murray was a member of the Armed Forces Epidemiological Board, American Society of Microbiology and the Infectious Diseases Society of America.

Dr. Einer M. Juel, 52, Atlantic, died March 31 at his home. Dr. Juel received the M.D. degree at U. of I. College of Medicine and interned at Milwaukee County Hospital in Milwaukee, Wisconsin. He began his medical practice in Atlantic in 1952. Dr. Juel was a member of the board of regents of Dana College at Blair, Nebraska, the board of directors of the Southwest Iowa Mental Health Center, past president of the Cass County Association for Retarded Children and charter member of the board of the Lutheran Council of the United States.

Dr. Robert D. Rowley, 61, Burlington, died March 29 at Klein Memorial Hospital in Burlington. Dr. Rowley received the M.D. degree at U. of I. College of Medicine.

Dr. Nathan Campbell, 93, Yarmouth, died April 28 at the Mediapolis Care Center. Dr. Campbell received the M.D. degree at Chicago School of Medicine and Surgery. He practiced medicine in Yarmouth from 1914 to 1962.

President's Page

Your payment of 1978 IMS membership dues is greatly appreciated. I want you to know you will receive in return a bushel overflowing in benefits (insurance and medical) and in representation.

As the pressures on medicine increase from the government, as labor pushes harder for federalized medicine, it is imperative that we have unified representation through the IMS and the AMA. If we remain healthy and strong and aggressive we can thwart the proponents of government medicine.

I am convinced that our organization—the Iowa Medical Society—is capable of representing the physicians of the State effectively. We will speak out on the issues of concern both at the state and federal levels.

We have a veteran administrative staff, we have an efficient organizational structure, and we have good involvement by member physicians in projects of importance. There are many opportunities for your personal participation in Society activities. We welcome your comments, ideas and opinions, this input will help keep the Iowa Medical Society among the best such organizations in the country.

1978-79 promises to be an exciting year. It should be a period of growth for all of us. I am sure your investment in the IMS will help keep the medical profession in the forefront on all major health care issues.

Anss Gerard Ml

Thank you for your participation.



Russell S. Gerard, II, M.D., President

The Question Box



by JAMES D. GERMAN, D.O.

COMMENTS ON EMS

Dr. German is medical director of the emergency department at Mercy Hospital in Des Moines. He is an EMS medical advisor to the State of Iowa.

Has progress been made in the provision of emergency medical service this past year?

Yes. Legislation has been enacted to provide for the certification of Advance Emergency Medical Technicians and Paramedics. Also certification will be available to ambulance and rescue squad services. A 12-member council will advise on these new programs. We also are using a \$192,000 federal grant to provide training and educational opportunities for physicians, nurses, etc. The level of physician participation in these educational programs needs to be increased. The 7 EMS regions have made progress in the year and are in varying stages of planning and implementation. We have moved forward.

MEDICAL MISCELLANY

TV EVALUATION . . . Consistent with AMA efforts nationally, the Society is participating in state-level discussions on television programming. The IMS is so engaged with several organizations at the behest of the Iowa State Education Association. The obvious objective is to encourage (1) positive television programming, and (2) discriminate viewing by the public.

What are the main provisions of the new law?

The new law describes three types of emergency medical technician. It defines the Basic EMT-A and indicates the level of proficiency here. It also specifies the standards of training for the Advanced EMT and the EMT-Paramedic. The advisory council, with significant physician membership, will have input into the training of these individuals.

What will be the impact of the new law?

The main impact of the law will be the presence of definitive prehospital treatment procedures. The law will allow us to further refine our prehospital capabilities. We are convinced the result will be decreased mortality in Iowa.

What are our greatest future needs in this area?

We need to (a) develop a regional trauma system, (b) make the public aware of EMS, (c) train more physicians and nurses in advanced cardiac life support, and (d) develop evaluation mechanisms to monitor the quality of EMS in both the field and the hospital.

MEMBERSHIP GOOD . . . 1978 IMS membership is holding strong with right at 2,700 physicians on a current status. Figures as of May 1 showed 2,669 members to date this year compared with 2,484 on the same date in 1977.

HOUSE CANDIDATES . . . Two wives of Iowa physicians were successful in June primary races for seats in the Iowa House of Representatives. Mrs. Loran (Janet) Parker is the Democrat candidate in House District 65 (Polk County). Mrs. Reid (Burtine) Motley will be the Democrat candidate in District 26 (Linn County).

Your malpractice insurance is no place to gamble



FACES IN 1978 IMS HOUSE

























The 1978 IMS Hause of Delegates involved many persons including thase shawn here. ABOVE—Upper: (Left) President L. W. Swansan, Masan City, addresses the Hause. J. H. Kelley, Des Maines, choirman, IMS Board of Trustees, presents Board report. lawa Governor Robert Ray greeted those attending the Delegates' Banquet. Speaker L. D. Caraway, Amana, chaired the House sessions. Middle: (Left) Reparting to the Hause were IMS Legislotive Choirman D. C. Yaung, Des Maines; IMPAC Choirman T. E. Kiernan, Newtan; Medica-Legal Chairman C. H. Denser, Jr., Des Moines, and Auxiliary President Mrs. J. L. Kehoe, Davenport. Lower: (Left) Illinais Cangressman George O'Brien keynated the IMPAC warkshop. Reference Cammittee Chairmen Charles Jans, Ames; W. C. Rosenfeld, Masan City, and C. L. Dagle, Ft. Dadge. RIGHT PAGE—Upper: (Left) 1978 IMS Merit Award Winner J. F. Bishap, Dovenport. New IMS Life Members, fram left, C. J. Peisen, Des Maines; R. A. Pattersan, Webster City; E. G. Kettelkamp, Manana; Groce E. Field, Edmonds, Washington, and J. H. McNamee, Des Moines. AMA Trustee Lowell Steen, Hammond, Indiana, was a banquet speaker. Middle: (Left) Election tellers are IMS post presidents, V. L. Schlaser, Des Moines; S. P. Leinboch, Belmond, R. L. Wicks, Okoboji, and J. F. Bishop, Dovenpart. IMS Baard Members include, standing fram left, M. E. Kraushaar, Ft. Dodge, vice-president; W. R. Bliss, Ames, secretory; Harmoz Rassekh, trustee, Council Bluffs; T. A. Burchom, Des Moines, treasurer; seated fram left, A. J. Havlik, Tama, trustee; R. S. Gerord, Woterloo, president, and P. H. Seebahm, lawo City, presidentelect. Lawer: (Left) Winner af the 1978 Woshington Freeman Peck Award is the Iowa Affiliote, American Diabetes Assaciation; shown with the oward are D. J. Palmer, Cedor Rapids, president; Roxie Kaftan, Cedar Ropids, executive director, and E. J. Hertko, M.D., directar af the diabetic comp. Re-elected cauncilors J. D. Kimball, Osceala, and D. J. Walter, Des Moines, both standing, flonk Judicial Cauncil Chairman J. E. Tyrrell, Manchester. A summary of 1978 House actions is faund an pages 234-237.















Summary of 1978 House of Delegates

The 1978 Annual Meeting of the Iowa Medical Society House of Delegates was May 6 and 7 in Des Moines. Sessions of the House were chaired each day by L. D. Caraway, M.D., and J. H. Lohnes, M.D., speaker and vice speaker, respectively. Open hearings were conducted by three reference committees on May 6. The Iowa delegates to the American Medical Association held an informal hearing on the report of the National Commission on the Cost of Medical Care. The Delegates' Banquet was chaired by Society President L. W. Swanson, M.D., with special remarks by Iowa Governor Robert D. Ray and AMA Trustee Lowell Steen, M.D., of Hammond, Indiana. The 1978 IMS Merit Award was presented to James F. Bishop, M.D., and the Washington Freeman Peck Award was given to the Iowa Affiliate, American Diabetes Association.

MAY 6 SESSION

Registered for the May 6 session of the House were 117 delegates, 21 alternates and 10 ex-officio members. Minutes of the May 7, 1977 session of the House of Delegates were approved as published in the July 1977 issue of the JOURNAL OF THE IOWA MEDICAL SOCIETY. Reports contained in the 1978 HANDBOOK FOR THE HOUSE OF DELEGATES were approved excepting a recommendation of the Judicial Council that Donald L. Taylor, former executive vice president, be accorded honorary membership in the Society.

The following reports were made to the 1978 House of Delegates:

Board of Trustees, by J. H. Kelley, M.D., Chairman. (Associated with this report was an audio-visual presentation on 1978 IMS activity.)

Blue Shield, by E. E. Linder, M.D., Chairman, Board of Directors.

Iowa Foundation for Medical Care, by J. H. Brinkman, M.D., President.

Iowa Delegates to American Medical Association, by Erling Larson, M.D., Senior Delegate.

Scanlon Medical Foundation/Iowa Medical Soci-

ety, by Hormoz Rassekh, M.D., Member, Board of Directors.

Necrology, by J. E. Tyrrell, M.D., Chairman, Judicial Council.

Nominating Committee, by L. O. Goodman, M.D., Chairman.

Legislative Committee, by D. C. Young, M.D., Chairman.

Iowa Medical Political Action Committee (IMPAC), by T. E. Kiernan, M.D., Chairman.

Medico-Legal Committee, by C. H. Denser, Jr., M.D., Chairman, with additional remarks by Darrel Chapman, IMS/Aetna account supervisor.

A check for \$12,253.57 was presented by A. J. Havlik, M.D., IMS trustee, to the University of Iowa College of Medicine. The grant represents contributions to the AMA/ERF designated for the U. of I. P. H. Seebohm, executive associate dean, accepted the check.

Supplemental reports from the Subcommittee on Medical Practice in Health Facilities and Homes and the Ad Hoc Committee on IMS Organizational Structure were contained in the delegates' packets but were not read.

The previously noted comments of Dr. Larson were for the purpose of calling attention to an afternoon hearing being held by the Iowa delegates to the AMA to discuss the report of the National Commission on Cost of Medical Care.

Society President L. W. Swanson, M.D., presented a summary of his year in office. He cited (1) the highest membership level in several decades, (2) the availability of the new IMS/Aetna Liability Insurance Program, (3) increased liaison with specialty organizations in the state, (4) the re-organizational study of the IMS, (5) the participation in health planning, (6) the attention to cost containment matters, (7) the consideration of nursing home conditions in Iowa, (8) the medical student loan program and the medical manpower situation generally, and (9) the excellent liaison with the U. of I. College of Medicine.

(Please turn to page 235)

Eight resolutions were formally introduced and referred to reference committees.

The following physicians were elected to Life Membership in the Iowa Medical Society:

Haward I. Down, M.D., Siaux City, Grace E. Field, M.D., Edmands, Washingtan, George D. Jenkins, M.D., Burlington, Enoch G. Kettelkamp, M.D., Manana, Jesse H. McNamee, M.D., Des Maines, Roy A. Pattersan, M.D., Webster City, Canan J. Peisen, M.D., Des Maines, David F. Shaw, M.D., Britt, and William M. Spear, M.D., Oakdale.

The following physicians were elected to Associate Membership in the Iowa Medical Society:

Black Hawk: G. H. Baker, M.D., Waterlaa, T. L. Trunnell, M.D., Naples, Florida

Buchanan: Selig M. Korsan, M.D., Independence Carrall: A. Reas Anneberg, M.D., Morrison, Illinais Cass: Millard T. Petersen, M.D., Atlantic

Clintan: George M. Ellisan, M.D., Clinton

Decatur-Ringgald: Kenneth R. Brown, M.D., Shell Knab, Missouri Floyd: Emmett V. Ayers, M.D., Charles City

Johnson: Placidus J. Leinfelder, M.D., lawa City, Raymond R. Rembalt, M.D., lowa City, Carroll B. Larsan, M.D., lawa City

Linn: Lawrence G. Carrigg, M.D., Cedar Rapids, Elmer A. Larsen, M.D., Denver, Calarada, Edwin B. McConkie, M.D., Cedar Rapids, Paul Stephen, M.D., Cedar Rapids

Mahaska: Ray E. Brackin, M.D., Oskaloosa

Marshall: Ralph C. Carpenter, M.D., Marshalltown, Edwin J. Marble, M.D., Marshalltawn, Willard P. Marble, M.D., Marshalltown, Russell M. Walfe, M.D., Marshalltawn.

Palk: Rabert M. Knax, M.D., West Des Maines, Byran M. Merkel, M.D., Des Moines, H. Kirby Shiffler, M.D., Des Maines, Elizabeth D. Practer, M.D., Des Maines

Pottawattamie-Mills: George H. Pester, M.D., Cauncil Bluffs, Joseph G. Kruml, M.D., Council Bluffs

Poweshiek: William I. Evans, M.D., Grinnell Scott: James Agnew, M.D., Bettendorf Story: Kenneth C. Piercy, M.D., Ames Union-Taylor: Howard G. Beatty, M.D., Creston

In another membership matter, the House of Delegates, acting on the recommendation of the Judicial Council, elected Donald L. Taylor to honorary membership in the Iowa Medical Society. The membership category is provided in the Bylaws and this is the first time the designation has been bestowed. A letter of appreciation from Mr. Taylor was read.

MAY 7 SESSION

Registered for the May 7 session of the House were 107 delegates, 21 alternates and 10 ex-officio members. The minutes of the May 6 session of the House were read and approved.

Lowell Steen, M.D., Hammond, Indiana, trustee of the American Medical Association, spoke to the delegates. He commented on AMA membership and particularly the growth in student membership. He noted recent polls which rank physicians number one among all professions, with the

AMA tops in public esteem among professional organizations. He indicated while it has decreased (from 67 to 62%) over the past six months, support continues to be strong for some form of national health insurance. He commented on the national voluntary cost containment program, and the state-level activity in this area.

Mrs. Kay Kehoe, immediate past-president of the IMS Auxiliary, reported on the work of this organization.

The following physicians were announced as having been elected or re-elected to the positions noted:

President-elect
Vice-President
Speaker af the Hause
Vice Speaker
Trustee (3-year term)
Secretary (3-year term)
Treasurer (3-year term)
AMA Delegate (2-year term)

AMA Alternate Delegate (2-year term) Liaison Delegates

Cauncilors

P. M. Seebohm, M.D., Iowa City
M. E. Kraushaar, M.D., Ft. Dadge
L. D. Caraway, M.D., Amana
R. T. Melgaard, M.D., Dubuque
Hormaz Rassekh, M.D., Cauncil Bluffs
W. R. Bliss, M.D., Ames
T. A. Burcham, M.D., Des Maines

J. M. Rhades, M.D., Pacahantas
Erling Larson, Jr., M.D., Davenpart
C. H. Denser, Jr., M.D., Des Moines
R. D. Whinery, M.D., lowa City
C. W. Seibert, M.D., Waterloa
Jacksan Ver Steeg, M.D., Des Moines
D. F. Radawig, M.D., Spirit Lake (3)
D. J. Walter, M.D., Des Maines (5)
J. D. Kimball, M.D., Osceala (10)

Highlights and actions of the Reference Committee reports are summarized as follows:

REFERENCE COMMITTEE ON REPORTS OF OFFICERS—Charles Jans, Chairman, C. D. Ellysan, J. S. Chapman, D. J. Sall, and G. R. Schmunk.

The Reference Committee lauded the Board of Trustees for its diligent and effective efforts in conducting the business of the Society.

House Action: Dues for 1979 were retained at their present \$275 per member level.

REFERENCE COMMITTEE ON ARTICLES OF INCORPORATION AND BY-LAWS AND MISCELLANEOUS BUSINESS—C. L. Dagle, Chairman, R. H. Congdon, R. A. Baldus, Wendell Dawning, and R. P. Ferguson.

Professional Liability: The favorable progress of the IMS/Aetna Professional Liability Insurance Program was noted.

House Action: Reaffirmed previous support for the IMS/Aetna Liability Insurance Program and urged every member to become aware of its provisions. Authorized distribution of (a) an informational folder on the program after one year and (b) an opinionaire (survey) to determine the level of member understanding.

IMS Organizational Structure: The House was advised of preliminary activity to evaluate the organization of the IMS. This is being done by an ad hoc committee.

House Action: Encouraged the committee to continue its consideration and present either a final or status report at the 1979 House of Delegates.

Nursing Home Care: (Subcommittee on Medical Practice in Health Facilities and Homes; Resolution from Monroe County Medical Society). These two items have been stimulated in part by recent concern over the delivery of care in nursing homes.

House Action: Affirmed that nursing home care in Iowa is generally good; urged development of new homes where such facilities are in short supply; asked the foregoing be transmitted to the Governor, State Department of Health, State Department of Social Services, the Iowa Health Systems Agency and members of the Iowa General Assembly. Reaffirmed six items approved by the Executive Council in 1975: (1) urging construction of more nursing and custodial homes, particularly in shortage areas, (2) supporting realistic reimbursement for nursing and custodial homes, (3) supporting prudent use of health care personnel to correlate funding with needed services, (4) supporting wherever possible a combining of required inspections, (5) supporting liaison with state agencies to increase physician understanding of nursing home care, and (6) stressing physician attention to see that nursing home orders are followed, to press additionally for adequate payment for a yearly maintenance physical examination.

Cost of Continuing Education: (Resolution from Des Moines County Medical Society). This resolution questioned the exorbitant cost of some continuing medical education programming and asked the IMS to investigate.

House Action: Acknowledged good judgment in Iowa regarding programming, economics, etc., of CME; urged individual members and county societies to inform the IMS when in-state CME programs are excessive in cost; asked IMS delegates to the AMA to be sensitive to this subject as it receives national consideration.

Role of Physician Extender: (Resolution from

Polk County Medical Society). This resolution sought to assure the highest level of care possible through appropriate use of extender personnel.

House Action: Declared quality of patient care should be the uppermost consideration in any use of physician extender personnel; admonished all member physicians supervising extender personnel to do so with the preceding in mind; called for reporting of any abuse of quality performance to the Board of Medical Examiners and the Iowa Medical Society; asked that the IMS actively seek to limit the work of the physician's assistant and the family nurse practitioner to the same facility where the physician is in attendance, thereby to oppose the development of the PA and family nurse practitioner as independent practitioners; requested the IMS maintain surveillance over developments in this area through the Committee on Delivery of Health Services with reports to the Executive Council and House of Delegates, and declared full support for the Family Practice Residency Programs in Iowa so first-level physician care will soon be close to all Iowans.

REFERENCE COMMITTEE ON LEGISLATION AND MEDICAL SERVICE—W. C. Rosenfeld, Chairman, G. L. Neligh, Janet Wilcox, L. R. Fuller, and J. W. White.

Iowa Foundation for Medical Care: In its report the IFMC requested House authorization to allow the IMS Board to provide financial support to the peer review activity of the Foundation.

House Action: Defeated a recommendation to allow the IMS Board of Trustees to offer financial assistance to the IFMC for private review of a physician's claim; supported the concept that acute care patients have quality review available for hospital services through review by the Iowa Foundation for Medical Care.

Objection to Specialty Screens Under Blue Shield UCR: (Resolution from Wright County Medical Society). This resolution asked Blue Shield to adopt one statewide medical and surgical screen regardless of specialty.

House Action: Suggested to Blue Shield of Iowa it explore the feasibility of adopting a one screen procedure similar to that used by Minnesota Blue Shield for UCR claims, and that findings on such study be reported to the IMS.

Hospital Eligibility Under Medicare: (Resolution from Des Moines County Medical Society). This resolution urged Medicare regulations be

altered to permit a patient in a skilled nursing facility to reaccumulate 60 days of acute care coverage.

House Action: Requested AMA to encourage HEW to amend Medicare rules to allow the skilled nursing home patient, or the patient in an institution that extends a spell of illness as defined by Medicare and who is financially responsible for his or her care, to reaccumulate 60 days of acute care coverage.

Blue Shield Payment for Surgical Assisting: (Resolution from Johnson County Medical Society). This resolution dealt with the handling of payments for surgical assisting by Blue Shield.

House Action: The House sustained a recommendation not to adopt.

Statute of Limitations: (Resolution from Cerro Gordo County Medical Society). This resolution urged IMS activity to obtain legislation to tighten the statute of limitations law as it pertains to liability for minors.

House Action: Referred matter to the IMS Committee on Legislation with recommendation that legislation be considered to apply statutes of limitation uniformly regardless of age.

Opposition to HMO's: (Resolution from Woodbury Medical Society). This resolution asked the IMS to oppose federal legislation to develop

and/or continue Health Maintenance Organiza-

House Action: The IMS continue to scrutinize and assess the value of all alternate proposals for the delivery of health care.

REPORT OF OPEN HEARING/COMMISSION ON COST OF MEDICAL CARE—John Rhodes, Iowa Delegate to AMA

Indication was made of the need to stress cost effectiveness rather than cost containment. Beneficial results will require commitment from patients, physicians and government. Use of deductibles and co-insurance was cited as being of potential value. Appearance of the costs of tests on the hospital order form was considered worthy of consideration. Invitation was extended to transmit further comments on cost to the AMA delegates prior to the June meeting.

The House approved a motion that the actions of the Board of Trustees of the Iowa Medical Society from the date of the last annual meeting to the present be ratified and affirmed. The House also acknowledged the distinguished and effective service of L. W. Swanson, M.D., as president of the Iowa Medical Society.



QUESTION HEW SURGICAL OPINION PLAN

Over the past few years there's been considerable discussion as to the amount of surgery performed in the United States. The subject grabbed the national spotlight in 1976 when it was asserted as much as 15 to 20 per cent of what's described as elective surgery is not needed. Substantial rebuttal was offered.

The topic is certainly worthy of examination. First, however, its extreme complexity must be acknowledged. Its subjective nature makes finding common and acceptable definitions a most elusive proposition. Its unique and vital involvement by patient and physician compounds the decision-making equation. And definitive research is still to come.

We mention the subject here because a new government second surgical opinion program is on the way. The Department of Health, Education and Welfare has disclosed it will mount an extensive media campaign on the merits of second surgical opinions beginning as early as next month. We are told HEW expects (a) to encourage the public to seek second consultations when a surgical procedure is recommended, and (b) to engage the medical community (in whatever organizational form) to establish county or state entities (described as list-developers and list-holders) to provide inquiring citizens the names of physicians who will render these second opinions.

It should be noted that the medical profession historically has supported the concept of consultation upon the request of a patient or whenever the quality of medical service might be enhanced. The obligation exists to assist a patient however possible in gaining access to as much information as he/she believes is necessary to decide on a course of action.

But so saying, it must be said further the Iowa Medical Society—based on a review by representatives of its Committee on Medical Service—has serious reservations as to the potential of this HEW program. According to its regional spokesman, HEW seeks two goals: (1) to educate the public as to the benefits of obtaining a second medical consultation on the need for

surgery, and (2) to provide an accessible system for the public to use in obtaining these consultations when they are desired.

Why does the IMS have reservations over a program to achieve these two objectives?

- It's believed the need for this program of nationwide magnitude has not been demonstrated adequately. Little evidence has been offered to show quality of care will be enhanced or cost savings will result. There are several second opinion experiments in process around the country which may produce data to support a national effort in a year or two.
- It's believed sufficient provisions now exist for those patients who desire second opinions on a proposed course of treatment. Payment for second opinions is now provided under Medicare and Medicaid and under some private insurance coverage.
- It's believed this HEW program will impose time commitments on many Iowa physicians whose schedules are already stretched. It further raises the unresolved question as to what physicians will be identified to provide the second consultations. Will the patient benefit from comparing the initial recommendations of a board certified surgeon with the opinion of a physician from another area of specialization whose name may be given by the list-holder? There is also the matter of patient travel to obtain the second opinion.

This HEW program was introduced to the representatives of the IMS and the Iowa Society of Osteopathic Physicians and Surgeons on June 7. Apprehension as to its potential merits was abundant. It was concluded that support should be withheld pending the receipt of more convincing evidence that such a national campaign will serve the best interest of the public.

These comments should not conclude without reemphasizing that patients have a complete right to second or third or however many opinions. And within reason, it should be the responsibility of the attending physician to assist and cooperate in the acquisition of these additional opinions.

IN THE PUBLIC INTEREST



Malpractice and Child Abuse

GERALD SOLOMONS, M.D., and HAROLD A. YOUNG, J.D.

IN 1965, the State of Iowa passed its first law against child abuse and willful neglect. This law was formulated in a negative emotional climate and was directed primarily at punishment of abusers. This attitude was predicated on the then generally accepted theoretical model—that a child abuser was mentally ill and the treatment of the problem was psychiatric therapy for the abuser. This was called the psycho-pathological model.

Over the next few years, a new social-psychological model emerged. This model declared people who abuse children are not necessarily emotionally disturbed. Perhaps only 5 to 10 per cent of them are. The vast majority are ordinary people overwhelmed by the complexities of life.

In line with this thinking the State of Iowa changed its law of child abuse and neglect in July, 1974. A more therapeutic, compassionate, and humanistic approach was adopted with the idea of

This discussion of the Landeros vs. Flood decision and the lowa Child Abuse Law will provide physician readers with important information on their implications for the medical profession.

keeping the family intact and getting help to all its members.

Because of the failure of health professionals (particularly physicians) to report, a new section was added to the 1974 law (235A.9) called "Sanctions for Failure to Report." The new law, with its sanctions, plus the increase of information in professional journals and the lay press, did not produce an increase in physician reporting. In calendar year 1974, of a total of 711 child abuse and neglect cases reported; only 27 (3.8%) were reported by physicians. A total of 1,585 cases were reported for calendar year 1975, of which only 54 (3.4%) were reported by physicians. Although the number of cases more than doubled, the percentage of physician referrals remained virtually the same. For 1976, 1,926 cases were reported, 61 (3.2%) of them have been physician referrals, an even smaller percentage.

CALIFORNIA CASE

No physician or health professional in Iowa has been charged with failure to report. However, a recent decision by the California Supreme Court

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF JULY 1978.

Dr. Solomons is Director Child Development Clinic, University of Iowa Hospitals, Iowa City, Iowa. He is also Director, Region VII Child Abuse and Neglect Resource Center. Mr. Young is Chief Attorney, Area Prosecutors Section, Iowa Department of Justice. He is legal advisor to the Iowa State Technical Assistance and Training Team on Child Abuse and Neglect.

may change the state of litigation nationally as it pertains to child abuse and neglect. The California Supreme Court overturned two verdicts by lower courts and established this basic principle: a battered child through his legal representative may ask a jury to award damages for a physician's negligence if further injury follows the doctor's failure to report abuse that he observes or even suspects. In other words, the physician may be guilty of malpractice. The case on which this decision is based is known as *Landeros vs. Flood*.

The Landeros vs. Flood decision has been termed a new malpractice peril for every doctor and hospital in the United States. Numerous writers have decried the California Supreme Court for opening a "Pandora's box" of new liability whereby a child, through its legal representative, may strike both at a physician and hospital for failing to diagnose and report suspected abuse.

The authors of this article are concerned about the effect of the *Landeros* decision on Iowa health care providers. It is incorrect to assume, as many previous writers have indicated, that *Landeros* establishes a new, but as yet uncertain, potential for liability, and that it is a potential which merely bears watching in the future.

In Iowa the liability of a health care provider for failure to report a suspected case of child abuse was established by state statute prior to the *Landeros* decision; such liability is and has been specific since July 1, 1974; and *Landeros*, in effect, only gives added emphasis to the medical practitioners' responsibility and potential liability.

The physician co-author of this paper usually prefaces presentations on child abuse with the statement, "It is important not only for the safety of the child but also for the protection of the practitioner that your suspicions in a suspected child abuse case be raised to a level of paranoia. . . . That it is more responsible for the physician to over-report than to be suspicious but fail to bring help to the child through reporting."

In a JOURNAL article¹ three years ago, Young warned of a "growing number of cases . . . when doctors and hospitals were held liable for their failure to report. . . ." He also stated, "The practitioner who fails to report a suspected child abuse case because of a concern for legal liability, may well be creating liability rather than avoiding it." Although published later, the original article was written even before Iowa had enacted the civil liability provision. Young's warning now is more immediate: "The legislative and judicial branches

of government across the nation have mandated health care specialists to act in the protection of the battered child. Virtually all of the reasons and excuses for failing to diagnose and report child abuse have been stripped away. Iowa has not as yet had a case involving failure to report, but one is coming—and soon."

This article first traces the development of the Iowa child abuse law. This understanding is necessary prior to an analysis of *Landeros*. This complex case is then described and interpreted in light of the California law where the case arose and in relation to the present law in Iowa.

I. LEGISLATIVE HISTORY OF IOWA CHILD ABUSE LAW

THE ORIGINAL ACT

Iowa enacted its first child abuse law in 1965.² This act created for "health practitioners" a mandatory reporting requirement in suspected child abuse cases as follows:

"Every health practitioner who examines, attends, or treats a child and who believes or has reason to believe that the child has had physical injury inflicted on the child as a result of abuse . . . shall make a child abuse report." Code of Iowa, Chapter 235A.3(1).

The original legislation contained no penalty for failure to report. Thus, the law required the health practitioner to act but did not provide civil or criminal sanctions for failing to do so.

THE 1974 AMENDMENTS

Nine years later the Iowa General Assembly adopted amendments to expand four areas of the law.

1. The Policy Statement

Whereas the original law was only "to provide protection for children who have been physically injured . . . ," the 1974 amendments went much further. The legislature adopted a more compassionate and therapeutic approach toward abusive parents. A call was made for increased reporting of suspected abuse cases. A mandate was laid down to provide rehabilitative services in an effort to stabilize the family and keep it intact wherever possible.

2. The Expanded Mandatory Reporter Class

Prior to 1974 only "health practitioners" were legally required to report. The 1974 amendments added six more categories of professions or occupational groups as mandated reporters.⁵

3. The Central Registry

As of July 1, 1974, there was created a "Child Abuse Information Registry" to be kept by the State Department of Social Services. This registry is designed as a central clearinghouse. Records to be kept include report, investigation and disposition data on all reported child abuse cases in Iowa.⁶

4. Sanctions for Failure to Report

The 1974 Iowa legislature put "teeth" in the child abuse law. Between 1967 and 1974 there was no penalty for failure to report. This was changed to include both a criminal and a civil liability upon the medical practitioner and other mandatory reporters.

a. The Criminal Penalty

For knowingly and willfully failing to report a suspected case of child abuse, upon conviction the person can receive up to \$100 fine or up to 10 days in the county jail.⁷

The 1976-1977 Legislature increased this penalty to up to 30 days in jail effective after January 1, 1978.8

b. The Civil Liability

This is the central issue of this article. In 1974, there was added to the Iowa child abuse law a deceptively simple—and at the time almost totally overlooked—statement of civil liability. It reads as follows:

"Any person required to report a suspected case of child abuse who knowingly fails to do so is civilly liable for the damages proximately caused by such failure." 1975, Code of Iowa, Chapter 235A.9(2).

It is important to keep the foregoing in mind in the following discussion.

II. THE LANDEROS VS. FLOOD DECISION⁹

The medical profession has reacted with dismay since the *Landeros* decision was handed down by the California Supreme Court on June 30, 1976. The case is extremely complex, both in what it decides and what it does not decide.

A brief of the facts-Gita Landeros was born May 14, 1970. On April 26, 1971, Gita, 11 months old, was living with her mother, Alma, and a man named Jamie Reyes. At that time, Gita's mother brought her to the San Jose Hospitals and Health Center where she was examined by A. J. Flood, M.D., a thoracic surgeon in private practice serving a routine schedule in the emergency department.

In its decision the Court described Gita's condition as "suffering from a comminuted spiral fracture of the right tibia and fibula, which gave the appearance of having been caused by a twisting force. (Gita's) mother had no explanation for this injury. Plaintiff also had bruises over her entire back, together with superficial abrasions on other parts of her body. In addition, she had a non-depressed linear fracture of the skull which was then in the process of healing. Plaintiff demonstrated fear and apprehension when approached."

There is substantial dispute concerning what Dr. Flood actually "saw" when Gita was presented, particularly in regard to the alleged skull fracture. ¹⁰ For purposes of the California Supreme Court decision, the allegations made by Plaintiff were accepted as true irrespective of whether they could be later proved. ¹¹

KEY FINDING

Accepting the alleged facts as true, the California Court made the following key finding: "Inasmuch as all plaintiff's injuries gave the appearance of having been intentionally inflicted by other persons, she exhibited the medical condition known as the battered child syndrome."

At least one writer¹² has indicated that Flood considered child abuse in his original diagnosis with this chart notation: "Child clean and well cared for. Battered-child syndrome considered and rejected."¹³

Flood admitted the child to the hospital for reduction of the fracture. There is no indication Flood made inquiries concerning previous injuries to the child. There is also no mention in the decision nor in any subsequent article that any record of previous injury would have been available to Flood if he had made an inquiry. Although speculative, it is most likely there was no such prior history recorded.

Following treatment Gita was released and returned to the custody of her mother and Reyes. The physical abuse continued. On July 1, 1971, the child was presented to a different doctor and hospital. She exhibited traumatic blows to her right eye and back, puncture wounds over her left lower leg and across her back, severe bites on her face, and second and third degree burns of her left hand. The latter injury is alleged to include the probable loss of use or amputation of the extremity.

The second examination of Gita on July 1, 1971 was conducted by Dr. Gerald Epstein, a general surgeon. And by an extraordinary coinci-

dence—Flood's private practice office partner. Epstein immediately diagnosed the battered child syndrome. He reported his findings to local police and juvenile authorities. The child was placed in protective custody.

Mother and Reyes left the state, but were apprehended, returned for trial, and convicted under the state law (California Penal Code, Section 273a) making child abuse a criminal offense.

GUARDIAN APPOINTED

A guardian was appointed for the child. Following hospitalization and surgery she was placed in foster care and adoption proceedings commenced. The guardian on behalf of the child began this action against Flood and the hospital.

The Issues—Basically the Landeros case asks the question: "Where a physician and hospital negligently fail to diagnose and report the battered child syndrome, resulting in the child being returned to the parents and receiving further injuries, can the physician and hospital be held liable for the subsequent injuries?"

The trial court in California in essence said "no" and threw the case out of court (dismissing the complaint) without allowing a trial. The lower court reasoned—as a matter of law—even if all the facts alleged were true this was not a circumstance where liability could or should be attributed to the physician and hospital.

This is as far as the case proceeded before it was appealed to the California Supreme Court. Therefore, the main issue before the appeals court was not whether there was liability; but instead, whether an opportunity should be given to find it. In other words, should a trial be allowed. The Supreme Court said "yes." In reversing the lower decision, the Supreme Court has sent the case back for a trial to determine if damages should be awarded.

TRIAL BY JURY

It should be kept in mind that neither Dr. Flood nor his hospital has "lost" anything as yet. They have not been found "guilty" of being negligent and no damages have been awarded. These matters are to be taken up at the actual trial-before-a-jury which is yet to come.

The underlying issues are many and complex. They can be grouped however in three basic areas.

First, the *standard of care* required of the medical profession. What degree of skill and what quantum of knowledge must the practitioner pos-

sess? The Landeros decision spells it out with reasonable certainty. The California Court drew heavily on the writings of Kempe and Helfer. 14 The Court also stated, "Trial courts have long recognized the 'battered child syndrome' and it has been accepted as a legally qualified diagnosis on the trial court level for some time. . . ." The message is clear. In assessing these cases the courts are going to include a requirement that the physician know how to diagnose and treat the battered child syndrome.

Secondly, the question of proximate cause. Dr. Flood and the hospital defended on the grounds they could not be held liable for injuries caused by someone else after the child had been released from their care. This is the legal doctrine of an "intervening act." To prove liability the plaintiff must show the defendant to have been the "proximate," i.e., direct cause of the injury. Defendant can avoid liability by showing that an "intervening act" over which he had no control actually caused the injury.

The Court did not buy the argument. Again, with voluminous quotations from Kempe, *et al*, the decision said that subsequent injury is the very nature of child abuse; that the medical profession has accepted this factor as part of the syndrome; and that the physician has a responsibility to foresee the very real probability of subsequent and severe injury to the child.

Thirdly, the statutory requirements concerning child abuse. Herein we find the great distinction between California and Iowa law. The California Penal Code, Section 11161.5, requires physicians to make a child abuse report if "it appears to the physician" the child has injuries "which appear to have been inflicted upon him by other than accidental means. . . ." The failure to make a report is a misdemeanor pursuant to Section 11162.

This law is virtually identical to Iowa's Chapter 235A.3(1) requiring a report and 235A.9(1) providing a misdemeanor penalty for failure to report, as described above. The California law stops there, Iowa does not.

III. THE *LANDEROS* DECISION APPLIED TO IOWA LAW

Since Iowa enactment of *civil sanction* for failure to report child abuse (Chapter 235A.9(2)) on July 1, 1974, the medical profession in Iowa is the target for liability that its counterpart in California has just become as a result of the *Landeros* decision. Stated in another fashion; if California had

enacted a civil sanction similar to ours, there would be no *Landeros vs. Flood* decision in the California Supreme Court. There would have been no necessity for the appeal. The trial court would have gone on with a trial without the appeals court being required to decide as a matter of judicial interpretation if a trial would be allowed.

This is the decision of the *Landeros* case; that absent a specific legislative enactment, liability can still be predicated upon common law principles of negligent medical malpractice.

The result is obvious. If the California courts have no difficulty in finding the potential for malpractice liability in the absence of a specific law, can one question what the Iowa courts would decide in light of our very specific statute? On the basic issue, the Iowa law is very clear and bears repeating—"Any mandated reporter who knowingly fails to report a suspected case of child abuse is civilly liable for the damage caused by such failure."

The present status of liability potential is therefore rather certain. The major emphasis of the Iowa law in its present form is upon the reporting of child abuse. It is a reporting law. With particular reference to the 1974 amendments, as discussed here, it is clear the Iowa legislature intended the reporting of suspected cases of abuse by the mandated reporters to be an effective system for the identification of abuse victims. By adding the criminal and particularly the civil liability provisions in the law for failure to report, the legislature has left no question it intends to make this system work.

In addition, the Iowa law also incorporates two other significant aspects which indicate legislative intent to encourage reporting. First, the immunities section¹⁵ which provides that anyone who makes a report in good faith is *immune* from liability relating to the subject matter of the report. Second, by specific legislative enactment, ¹⁶ the doctor-patient privilege of confidentiality is abrogated in the making of a report or in the subsequent giving of testimony in a child abuse case.

The Iowa law had all of the requisite conditions for medical malpractice liability long before the decision in *Landeros*. An Iowa court would have little difficulty in determining the intent of the legislature when applying the child abuse law to a health practitioner or medical institution for failing to report.

Landeros merely serves as further "boilerplate" to enhance the liability potential. This case spells out the duty of the medical profession to educate itself in the diagnosis of the battered-child syndrome; to be alert to and aware of the physiological, sociological and psychological symptoms of abuse; and to report child abuse whenever it is suspected.

CONCLUSION

The Landeros decision read in conjunction with the Iowa child abuse law answers the question, "Should I or should I not report this case as child abuse?" The law now provides virtually complete safeguards for those mandatory reporters who do report. At the same time, there are severe, indeed grave, consequences for those who do not. To report or not to report is no longer the question. For if that question is in the mind of the practitioner, he or she already is possessed of sufficient suspicion to trigger the responsibility for reporting.

The issue now is one of definition. The ability to diagnose the syndrome is required. And a failure to make the diagnosis can be malpractice. Kempe and Helfer's writings on the diagnosis of child abuse are now mandatory reading for the health care professional as a result of the *Landeros* case. The court said "A physician is required to possess and exercise, in both diagnosis and treatment, that reasonable degree of knowledge and skill which is ordinarily possessed and exercised by other members of his profession." The court also spoke of numerous "published admonitions to the profession" in the medical literature.

In 1976, approximately 2,000 cases of child abuse were reported in Iowa. It has been estimated the *actual* incidence of abuse in Iowa is 10,000 to 20,000 cases per year and growing, at least slightly, each year. Physicians have been relatively unconcerned about reporting and this has been a major contributory factor in the extremely poor statistics. The legislature and the courts, however, are concerned. The stage is set for Iowa's first case against a health practitioner or hospital for failure to report a suspected child abuse case. The courts are ready—and waiting.

REFERENCES

The references noted with this paper are available on request either from the authors or the JOURNAL OF THE IOWA MEDICAL SOCIETY. Also available is a bibliography of general readings on the subject.

Increases in Unusual Cancer Types In Iowa

JOHN W. BERG, M.D. lowa City, Iowa

Noted here are nine rare cancers which appear to have had a greater incidence with the passage of several years. The question is raised as to why.

MONITORING CANCER incidence in an area such as Iowa has two aspects. First is the discovery of real trends over time in the occurrence of common cancers. For instance is lung cancer still on the rise (probably) or has it finally leveled off? The second facet is to watch for any increase in rare tumors since these may signal a new environmental or occupational risk. Recent examples elsewhere have included mesotheliomas in asbestos workers, angiosarcomas of the liver due to vinyl chloride, and in England nasal adenocarcinomas in woodworkers. The difficulty is that rare tumors may increase for other reasons. Pathologists may change their diagnostic criteria, there may be random fluctuations in numbers, or current incidence may be normal but incidence in the control period unusually low.

It is in light of possible but not necessarily probable importance that a list is provided of rare cancers diagnosed more frequently in Iowa in 1973-74 than in 1969-1971. It is one objective to learn if any potential explanations can be suggested by any JOURNAL readers or if anyone would wish to investigate any of the problems further. Assistance can be provided to inves-

tigators who may wish to contact diagnosing or treating physicians. There have also been prepared for forwarding to interested parties case lists for each rare type giving age, sex, race, and stage of disease, whether known to have died, and county of residence (but of course no personal or hospital identification).

Besides these particular rare cancers there is also a 55% increase in cutaneous melanomas. All skin sites were affected equally. The main increases were in men between 45 and 59, in

TABLE I
RARE CANCERS RECENTLY INCREASED IN IOWA

	Observed 1973-1974	Expected fram 1969-71 Incidence
Vascular sarcamas	15	6
Chondrosarcomas	19	9
Neurosarcomas	14	9
Reticuloendothelial sarcomas	13	5
Dermatafibrasorcama	24	11
Renol sarcamas	6	0
Testicular embryanal corcinama .	29	18
Sarcamas af small intestine	18	11
Ethmaid sinus carcinomas	10	4

women between 35 and 64 and in women between 75 and 84. Numerically, the greatest numbers of new cases were seen in metropolitan counties. When the highest rates were mapped, however, they did not occur in the large cities but rather in 3 clusters of counties around Mason City, Fort Dodge and Ottumwa, respectively. The Iowa 1969-1971 rates were the same as those reported for Minneapolis, Detroit and Pittsburgh. Though higher, the current rates of 4.6 (male) and 4.4 (female) per 100,000 population (age adjusted) are still below the rates reported for southern and western regions of the country.

Dr. Berg was director of the Iowa Cancer Epidemiology Research Center when this material was prepared. He is now associated with the Colorado Regional Cancer Center. He has been succeeded in Iowa by Richard Gallagher, M.A. This study is supported by contract No. NOI CP 43200, NCI.

Visual Disability in Children

WILLIAM CLARKE, M.D., and WILLIAM E. SCOTT, M.D. lowa City, lowa

This assessment of ocular pathology at the lowa Braille and Sight Saving School demonstrates that congenital structural deformities of the eye, taken collectively, are the leading cause of visual disability.

PATTERNS OF BLINDNESS in children are a changing phenomenon, subject to the epidemiological variances of the times and the level of sophistication of diagnostic methods.

While ocular pathology due to structural, enzymatic and chromosomal disorders must remain relatively constant within a given population, new patterns of disease evolve and emphasis is changed.

Consider the upsurge of interest in congenital cataracts which followed the rubella epidemic in North America during the 1960's. ¹ This coincided with the important work of Hubel and Weisel² in the field of deprivation amblyopia, and prompted interest among ophthalmologists in early surgery and optical correction for these children.

Retrolental fibroplasia became a major problem in the 1950's coincident with the use of high flow oxygen in the treatment of premature infants with respiratory difficulties. Recognition of oxygen as the etiological agent led to corrective measures, but not before this potentially preventable disease had taken its toll.

Dr. Scott is an associate professor in the Department of Ophthalmology at the University of Iowa College of Medicine in Iowa City. Dr. Clarke was a fellow in the Department and is now chief of Children's Hospital for East Ontario, Canada. In order to categorize and reassess changing patterns in Iowa, a study of children at the Iowa Braille and Sight Saving School was undertaken.

The Iowa Braille and Sight Saving School in Vinton, Iowa, was founded in 1852 to train and educate visually handicapped children. At present there are 118 children enrolled at the school, which employs a staff of 120, including 28 full time teachers.

The curriculum is designed to provide classes of instruction ranging from 4 year old pre-school to grade 12, and graduating seniors receive the same diploma they would receive had they attended a public high school. The academic year is nine months long, providing a three month summer vacation.

In addition to regular classes at the school proper, one class each day is taken in a local public high school, the option of which course to attend being left open to the individual student.

Classes at the school include Techniques of Daily Living where emphasis is placed on grooming, mobility and self help skills. Special classes are also provided for slower children, as well as those with multiple handicaps, learning disabilities, and varying degrees of mental retardation.

The school is administered by the University of Iowa State Board of Regents and is under the direction of Richard M. DeMott, School Superintendent.

MATERIALS AND METHODS

One hundred and eight children were examined and hospital charts, when available, were reviewed. Information is presented, whenever possible, in tabulated form. Multiple ocular pathology was present in many of the cases, and these are listed separately in the various tables.

TABLE I AGE AND SEX DISTRIBUTIONS

Age in	Υe	ea	rs																								1	Ν	יטי	n	bei
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TABLE II AGE VISUAL DISABILITY FIRST NOTED

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2-3	,																															3
4-5																																5
6-7																																2

TABLE III YEARS OF ATTENDANCE AT IOWA BRAILLE AND SIGHT SAVING SCHOOL

Years of Attendance at School	Number
rears of Affendance of School	Nomber
Less than 1 year	5
1-2	21
3-4	9
5-6	12
7-8	7
9-10	12
11-12	5
13-14	1

TABLE IV VISUAL ACUITY

Visual Acuity	OD	os
Better than 20/60	. 4 (4)	3 (1)
20/70-20/100	. 4 (5)	4 (7)
20/200-20/400	. 20 (6)	18 (4)
C.F	. 14	17
н.м	. 9	6
L.P	. 20	23
N.L.P	. 27	28
Total	98 (15)	99 (12)

C.F.—counts fingers.

RESULTS

Age and sex distributions are noted in Table I. Table II shows the age at which visual disability was first detected, the majority being in the first year of life. Of these, many were apparent at birth or in the first few months of life. Accurate information as to the age of the onset was not available for all children, and these were excluded. Table III indicates the number of years the children have attended the Iowa Braille and Sight Saving School. This ranged from one week to 13 years, with average of 4.9 years.

Measured visual acuity at the time of examination is outlined in Table IV. In cases where near was better than distance visual acuity, or it was possible to obtain only near vision, these are recorded as numbers in parentheses. Children who

TABLE V DIAGNOSIS

Diognasis	Numb
Nystogmus	
Congenital cataracts	
Strobismus	
Optic otrophy	
Retrolentol fibroplosio	
Bond kerotopothy	
Congenital gloucomo	
Microphtholmos	
High myopio	
Retinitis pigmentoso	
Hypoplosio of optic nerve	
Phthisis bulbi	
Secondory glaucoma	
Retinoblostomo	
Aniridio	
Buphtholmos	
High ostigmotism	
Secondory cotoroct	
Axenfelds syndrome	
Retinol detochments	
Congenital retinal dysplosia	
Corneol leucoma	
Albinism	
Sclerocorneo	
Disc, choroidol colobomo	
Corticol blindness	
Kerotoconus	
Punctoto albescens	
Megolocorneo	
Persistent hyperplostic primory vitreous	
Congenital anophtholmos	
Toxoplasmosis	
Heredomoculor degeneration	
Stevens-Johnson	
Retinoschisis	
Congenital retinal folds	
Rubello retinopothy	

L.P.—light perception.
N.L.P.—no light perception.

had been unilaterally or bilaterally enucleated were recorded as NLP (no light perception).

Table V lists diagnoses by relative frequency. In many cases, multiple forms of ocular pathology are present, and these are listed separately.

At the time of examination, the fundus of one or both eyes could not be visualized in 37 of the 108 children. Elevated intraocular pressure by Shiotz Tonometry was found in 4 of the 108 children (Table VI).

Many children showed other mental or physical disabilities as listed in Table VII. This was often part of an ocular or systemic syndrome. Thirty-six of the 108 children had undergone previous ocular or related surgery of some type (Table VIII). The majority of these were enucleations or cataract surgery.

The positive family history of serious ocular abnormality was elicited in 19% or 21 of the 108 children (Table IX).

DISCUSSION

Congenital structural abnormalities continue to be the leading cause of blindness among this selected population. Treatment for severe ocular deformities remains limited at best.

A large percentage of these children have nystagmus or strabismus. However, this is a second-

TABLE VI VISUALIZATION OF FUNDUS

Fundus Nat Visualized	%
37 af 108	34
Intra Ocular Pressure	
Intraacular Pressure Elevatian	%
4 af 108	3.7

TABLE VII OTHER PHYSICAL OR MENTAL DISABILITY

Disability	Number
Mental retardatian	14
Mild	9
Severe	5
Deafness	6
Cerebral palsy	3
Cerebral palsy Heart murmur	2
Hydracephalus	2
Diabetes	2
Brachycephaly	1
Autism	1
Laurence-Maan-Biedl syndrame	1
Hallermann-Streiff syndrame	1
Incantinentia pigmenti	1
Micracephaly	

ary phenomenon, related to poor vision in one or both eyes. In no case were these a primary cause of blindness.

Examination of Table V reveals that congenital cataracts are the foremost single cause of visual loss in the group examined. Early surgery and optical correction are now considered essential for infants with congenital cataracts, if deprivation amblyopia and pendular nystagmus are to be avoided. Delaying surgery can only lead to irreversible loss of visual potential, and treatment should be undertaken in the first few months of life.³

Prematurity in conjunction with the use of oxygen became recognized as the etiological agent of retrolental fibroplasia in 1952 and coordinated effort began at that time to monitor arterial oxygen levels of prematures maintained in incubators. Over the next decade this resulted in a lowered incidence of retrolental fibroplasia, but higher infant mortality rate. Retrolental fibroplasia is the primary diagnosis in 11% of the children examined. However, the average age of these children is 15.3 years, the youngest being nine years old, indicating a greater awareness in

TABLE VIII
PREVIOUS OCULAR OR RELATED SURGERY

Previous Surgery OD	OS	ΟU	Tatal
Cangenital cataract aperation 4	1	10	15
Enucleatian 2	4	5	11
Glaucama surgery		3	3
Entrapian repair	1		1
Cyclacrya therapy	1		1
Phata caagulatian ar radiatian far			
retinablastama			1
Surgery far craniapharyngiama			2
Shunt far hydracephalus			2

TABLE IX
POSITIVE FAMILY HISTORY

Cangenital cataracts Retinablastama Aniridia Macular degeneratian Cangenital glaucama Hydracephalus Albinism Retralental fibraplasia Tapetaretinal degeneratian Nystagmus Retinal dysplasia	Disease	Nun	nbe
Retinablastama Aniridia Macular degeneratian Cangenital glaucama Hydracephalus Albinism Retralental fibraplasia Tapetaretinal degeneratian Nystagmus	Cangenital cataracts	 	. :
Macular degeneratian Cangenital glaucama Hydracephalus Albinism Retralental fibraplasia Tapetaretinal degeneratian Nystagmus			
Cangenital glaucama Hydracephalus Albinism Retralental fibraplasia Tapetaretinal degeneratian Nystagmus	Aniridia	 	. :
Hydracephalus Albinism Retralental fibraplasia Tapetaretinal degeneratian Nystagmus	Macular degeneratian	 	. :
Albinism Retralental fibraplasia Tapetaretinal degeneratian Nystagmus	Cangenital glaucama	 	. :
Retralental fibraplasia Tapetaretinal degeneratian Nystagmus	Hydracephalus	 	·
Tapetaretinal degeneratian	Albinism	 	
Nystag mus			
	Tapetaretinal degeneratian	 	
Retinal dysplasia	Nystagmus	 	
	Retinal dysplasia	 	

recent years of the toxicity of oxygen on the premature retina.

The diagnosis in four children was bilateral retinoblastoma. Six of these eight eyes had been enucleated and the remaining eyes irradiated, resulting in vision of 20/400 and hand motions. Of particular interest is the fact that three of four had a positive family history of retinoblastoma.

SUMMARY

- 1. One hundred and eight children at the Iowa School for the blind were examined.
- 2. Congenital structural deformities of the eve. taken collectively, are the leading cause of visual disability.

3. Retrolental fibroplasia has assumed a less important role as a cause for blindness in children.

4. Children with congenital cataracts should undergo surgery and receive optical correction in the first few months of life in order to prevent irreversible deprivation amblyopia.

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ABORTION INFORMATION . . . After July 1, based on 1978 state legislation, payment for abortions through Title XIX will be restricted as follows: (1) where the attending physician certifies the life of the pregnant woman is endangered; (2) where the physician certifies the fetus is physically deformed, mentally deficient or afflicted with a congenital illness; (3) where rape is involved, such incident is reported within 60 days; (4) where incest is involved, such incident is reported to a law enforcement agency or the Department of Social Services within the first two trimesters of pregnancy; and (5) when treatment is rendered for a spontaneous abortion or miscarriage where all the products of conception are not expelled. A copy of the certificate must be attached to a physician's claim if payment is to be made.

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M. E. ALBERTS, M.D., Scientific Editor

INSTANT PUDDING

Do you remember the advertisements which extolled the great culinary advance represented by the invention of instant pudding? No longer was it necessary to mix the ingredients and cook them carefully in a double-boiler. Later, came instant cake mixes, T.V. dinners, gourmet foods and other hurry-up delicacies. Ah, the era of instant preparation and consumption! Our life style is calculated for instant results. There is an impatience in our soul that elicits gratification with the least amount of effort and preparation. All this has precipitated social problems, especially in the field of medicine.

Sir Alexander Fleming keenly observed a phenomenon in 1928 that led to the discovery of penicillin. In 1941 clinical use proved the efficacy of the antibiotic, to be substantiated over and over during World War II. The miracle drug was born, and from that great milestone many new drugs were conceived. Unfortunately, we have attached the term "miracle" to many of the drugs and other modes of treatment in medicine. This has created a sense of frustration too often, because the "extraordinary event manifesting a super-natural work of God" does not always occur. All these drugs do not work in universal and miraculous ways. There is not instant success nor gratification. Our patients may feel dissatisfied and disillusioned. The "instant pudding" was a flop.

There is a frustration which prevails in the physician's efforts to maintain good health and preserve life. Our efforts are to no avail when there is a lack of patient understanding and cooperation. Many of our population seek gratification and at the same time demand instant relief after the pursuit of that gratification. Our education

efforts regarding the effects of smoking, alcoholic intoxication, and the use of dangerous drugs go unheeded by many and then when disastrous results occur, there is a cry for the miracle. I am sure many physicians within themselves feel a twinge of futility about the entire chain of events. Yet, as Albert Schweitzer wrote in his Album, "The purpose of human life is to serve and to show compassion and the will to help others." So we go on giving aid to those who are reluctant to avoid the known disasters their life style may impose upon them. Their instant gratification is at a high price. We take solace that many of the drugs and techniques we can offer will provide an ease to pain and suffering.

Medicine is now facing another instant pudding. It is supposed to cure the ills of society. We are told that health care in the United States is not providing the instant gratification our legislators and politicians desire, so they propose the panacea—the cure-all—governmental intervention to a greater degree. These proponents indicate total governmental control of medicine will cure all the ills. This is not so. An old adage, "Physician heal thyself," could well guide those who want to cure American medicine. When the government can demonstrate its methods are without fault, when governmental agencies can show they operate more efficiently for the public good, then perhaps something constructive can be offered and considered. Negative criticism, innuendo, tampered statistics, and outright untruths will not suffice. Instant gratification grows out of a responsible attitude, a calculated consideration of all factors, and unbiased appraisal of the given situation. In this instance it would be appropriate to evaluate all the NHI ingredients, as a competent chef would, simmer them slowly, carefully judge the possible results, and hopefully savor a worthwhile product.—M.E.A.

RICHARD F. BIRGE, M.D. 1910-1978

Dick Birge was a man with a great capacity for service. He served ably in many positions of leadership. His professional life was dedicated to maintaining and improving the private practice of medicine. For this we who succeed him are indebted.

It was my pleasure to work in close association with Dick Birge during his years of service to the Iowa Medical Society, to Blue Shield, to the State Board of Medical Examiners and in other capacities. His contributions as secretary,

president-elect and president of the IMS over a 14-year period were conscientious, thoughtful and effective. He was keenly interested in the opinions of others, he gleaned from his colleagues insights which helped him reach his own conclusions.

His receipt of the Iowa Medical Society Merit Award in 1975 attests to the high esteem in which he was held by his colleagues.

Anyone who knew Dick Birge, knew of his deep affection for the practice of medicine. His interest was always for, and in behalf of, the private practice of medicine. We can be thankful for persons willing to give of themselves in this way.—VERNE L. SCHLASER, M.D.

ABOUT THE AUXILIARY

We are proud of what we have been doing, just as we are proud of the profession we share with you. We agree with recent polls which find the American doctor in a position of high regard, despite the controversy that often swirls about him. This opinion is sometimes shaken when dinner is late for the third straight evening.

Perhaps once the medical auxiliary was properly termed a tea-and-cookies social club, but no more. We find the words of our national president true when she said, "Young medical wives refuse to join us unless we are actively involved in important issues," and that we are.

Your wives have come to workshops and meetings to learn ways in which government has become involved in the practice of medicine. What we learn will help us to speak with authority to our non-medical friends about the future of medicine.

I am happy to report we have finally exceeded by 45 members our goal of 1,200, a goal we have tried to reach for several years. Two hundred twenty-five of those members are considered new.

This year we have speakers and projects in the areas of immunization, child abuse, the impaired physician, TV programs, public affairs and international health. We have surveyed superintendents in one area of our state in an effort to get

These remarks were presented May 7 to the 1978 1MS House of Delegates by Mrs. Joe (Kay) Kehoe, Davenport, who served in 1977-78 as Auxiliary president.

health education back into the schools of Iowa, and some of our counties are equally involved in the cardiopulmonary resuscitation program.

The legislative process and the political arena are areas we are beginning to participate in, and we enjoyed entertaining the legislative wives for brunch in February by permission of the Attorney General, the Criminal Code notwithstanding.

Like you, some of us support IMPAC and contribute to the Scanlon Foundation in memory of deceased members of our medical family.

We have invested information in the National Project Bank, and retrieved ideas for use in our state. We have used package programs for outside organizations on selected health issues, and have attended national meetings and conferences. We have represented the Auxiliary in allied medical group meetings. Currently, we are making plans for the 50th anniversary next year.

During our annual meeting we honored an Iowa lady who has given remarkable volunteer medical service to her community. Our AMA/ERF committee reports a total of \$7,600 contributed for the benefit of the loan fund for medical students.

Our House of Delegates have voted to raise dues a year from now, and this will give us an opportunity to provide more and better programs for our members, and to assume more of our expenses.

The Johnson County Medical Society was given permission to organize a new auxiliary. Auxiliaries are most successful when husbands and medical societies support their efforts. We have appreciated the partnership attitude of the IMS toward its right hand, and are deeply grateful for your financial and moral support. You have given us a feeling of worth by asking some of our members to serve on your committees and by inviting others to attend special meetings.

This past president has learned and listened at your Executive Council meetings, and has considered it a privilege to assist medicine through its Auxiliary.

Our goal has been to grow in numbers, to grow

in knowledge of medical issues, and to grow in our involvement and participation. We have made progress, and the more we grow, the more we are aware of new ways we can be of help.

Thank you for enabling the Auxiliary to play a role in trying to improve the quality of life in Iowa. You may be assured we will continue to expand those efforts, and with normal encouragement, your wives could easily become your most valued physician assistants.

DRUG DIVERSION

The Drug Enforcement Administration of the United States Department of Justice had a newsletter recently which contained interesting data about drug enforcement. A reminder is made to physicians to complete the necessary drug registration forms carefully. Data is presented about theft prevention, registration statistics and the location of district DEA offices.

A very interesting commentary is made regarding drug diversion by "script writing" doctors. Prescription orders are written for controlled drugs to persons for non-medical reasons. The recipients have the prescription orders dispensed, and then frequently sell the drugs to illegal traffickers. Many prescription recipients are known to go from one "script doctor" to another to obtain drugs to divert from the where-

REGISTRANT FACTS, Vol. 4, No. 1, Spring 1978.

Letter to the Editor

RETORT ON BOOK

In the May, 1978 issue of the JOURNAL the book, CAN YOU DO IT UNTIL YOU NEED GLASSES? (Henry G. Felsen, New York, Dodd Mead and Company, 1977), is reviewed and recommended to "all teenagers." It is suggested that physicians recommend this book to their adolescent patients.

The book contains a fair amount of misinformation as well as many overgeneralizations and oversimplifications. Infrequent or idiosyncratic drug reactions are referred to in Chapter 29 and

withal to support expensive heroin habits. Others have organized the diversions of drugs into volume business. Recent investigations in the San Francisco and Berkeley area involved 13 pharmacists who received 20,661 Schedule II prescription orders from over 900 doctors during a three-month period. The audit revealed that seven doctors who were indicted wrote 53-plus percent of all the prescription orders. Fourteen other doctors awaiting hearings wrote an additional 22-plus percent of the prescription orders surveyed.

We would hope that such diversion of drugs to illegal channels does not exist in Iowa. The problems of drugs are a continuing social dilemma. Control is difficult. Some are so naive to think that lessening controls will reduce the illegal trafficking for monetary gain, but we know that to be invalid thinking. The methods are available for controls. The doctor who betrays his professional and ethical trust to be trapped in the illegal "script writing" for non-medical indications is not a true medical practitioner.—M.E.A.

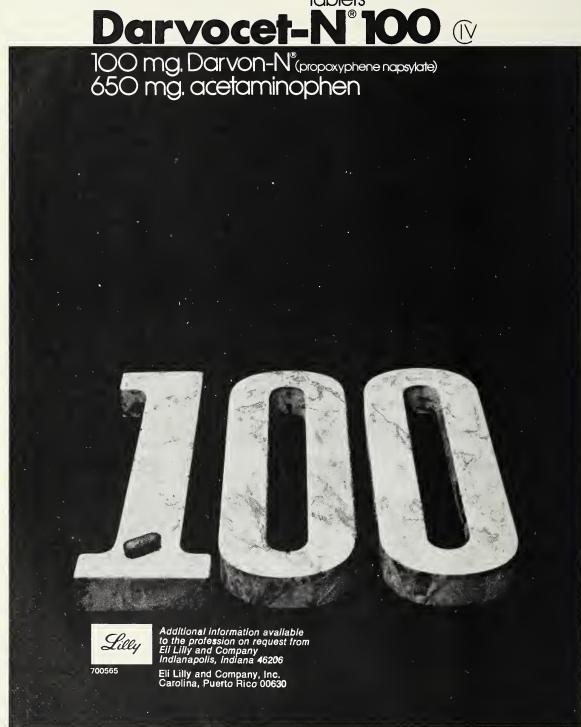
elsewhere as normative and the effects of marijuana are overstated in the extreme. Such obvious fallacies would quickly lose the attention of most teenagers and would undermine the usefulness of any correct information presented in the book.

In addition, the "folksy" tone of the writing usually misses its mark and comes across as condescending. Adolescents are particularly sensitive to adults trying to talk their "lingo" and react with disgust to stuffy messages in mod clothing.

I am afraid that in my opinion the current work leaves the need for a good adolescent source book on drug use unfilled.—Alan J. Horowitz, M.D., Ph.D., Assistant Professor in Child Psychiatry, University of Iowa

contains no aspirin

tablets



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State Department of Health

LEGIONNAIRES' DISEASE

The following plan for surveillance of Legionnaires' Disease has been prepared by Charles Helms, M.D., Assistant Professor, Department of Internal Medicine, Infectious Disease Division, University Hospitals, Iowa City, Iowa, in conjunction with the Iowa State Department of Health and the State Hygienic Laboratory.

THE PROBLEM

Legionnaires' disease is a newly recognized bacterial respiratory tract infection usually presenting as pneumonia. Since July, 1976, over 700 cases of the disease have been recognized in the United States. Mortality has ranged from 0-50% with an overall value of 15%. Cases occur in epidemics and sporadically; the majority of reported cases have occurred in adults over the age of 40 years and individuals with serious underlying medical illnesses. All epidemics reported thus far have occurred in the summer and autumn. Legionnaires' disease has not been shown to be communicable; available evidence implicates airborne dissemination of the agent in epidemics.

At least 10 cases (5 fatalities) of Legionnaires' disease have been documented in the State of Iowa. At the University of Iowa Hospitals we estimate Legionnaires' disease to have accounted for a minimum of 7% of pneumonias between June and November, 1977.

There is evidence that antibiotic therapy may be helpful in reducing morbidity and mortality associated with the disease. It is, therefore, critical to establish the diagnosis of Legionnaires' disease as rapidly as possible and to keep an active surveillance for it in the hospitals throughout the state.

PLAN FOR SURVEILLANCE

A concerted effort will be made to survey for

the presence of Legionnaires' disease throughout Iowa beginning July 1, 1978. A clinically suspect case must meet all of the following criteria:

- 1. Acute onset within 72 hours.
- 2. Fever-101°F (38.2°C).
- 3. Chest x-rays showing multilobar (more than one lobe) or bilateral pulmonary infiltrates.

Cases with blood cultures positive for other bacterial pathogens may be excluded.

Illnesses with the above clinical characteristics should be reported directly to Laverne Wintermeyer, M.D., Director of Infectious Disease Control and State Epidemiologist at the State Department of Health (515/281-5424). Dr. Edward Renner of the State Hygienic Laboratory in conjunction with Drs. Charles Helms and John Viner of the Infectious Disease Division, Department of Internal Medicine, University of Iowa Hospitals and Clinics will follow up on the report. A request for acute and convalescent sera drawn 3 weeks apart and for any tissue obtained from the patient for diagnostic purposes will be relayed to the attending physician. Post-mortem tissue will also be requested. There will be no charge to the patient or hospital for diagnostic services.

DIAGNOSIS

The primary means of diagnosis is by demonstrating a four-fold or greater rise in titer of antibodies to the Legionnaires' disease bacterium by the indirect immunofluorescence technique. Submit acute and convalescent sera drawn 3 weeks apart to the State Hygienic Laboratory. Label these "Legionnaires' disease." The date of onset of the patient's illness should be placed on the slip accompanying the acute serum.

Diagnosis may also be made by testing pleural effusion fluid and biopsied lung tissue for the presence of Legionnaires' disease bacteria by direct culture and by direct immunofluorescence Vol. LXVIII, No. 7

examinations. Specimens labelled "Legionnaires' disease" with the date of onset of the patient's illness should be submitted to the State Hygienic Laboratory. The State Hygienic Laboratory will issue test results to the physician involved in the care of the patient as promptly as possible.

May 1978 Morbidity Report

	May	1978	1977	Mast May Cases
	1978	ta	ta	Reparted Fram
Disease	Tatal	Date	Date	These Counties
Amebiasis	17	76	36	Baane
Chickenpax	1578	5322	7098	Scattered
Canjunctivitis	447	703	1610	Black Hawk,
				Buena Vista, Linn
Erythema infectiasum	10	43	47	Pattawattamie,
				Clintan, Linn
GI viral infection	1260	12656	15845	Scattered
Giardiasis	1	11	30	Baane
Hepatitis, infectiaus	1 <i>7</i>	70	46	Janes, Kassuth,
				Jahnsan
Hepatitis, serum	4	40	53	Palk, Dubuque,
				Scatt, Unian
Hepatitis, unspecified	11	34	10	Scattered
Impetiga	96	437	364	Janes, Linn, Marian
Infectiaus mana.	161	587	645	Black Hawk,
				Linn, Stary
Influenza, lab. can.	3	175	68	Jahnsan,
				Decatur, Linn
Influenza-like illness	2841	38545	40036	Scattered
Meningitis, type unsp.	2	8	4	Dickinsan, Scatt
Mumps	19	110	1227	Black Hawk,
				Clintan
Pediculasis	57	299	203	Scattered
Pinwarms	4	14	22	Palk
Pneumania	306	1432	525	Cerra Garda,
				Dubuque, Linn
Rabies in animals	15	62	53	Scattered
Rheumatic fever	4	22	25	Scattered
Ringwarm, bady	62	168	174	Black Hawk, Linn
Ringwarm, scalp	6	16	5	Scattered
Rubella	21	40	157	Scattered
Rubeala	27	48	3855	Buchanan
Scabies	145	643	539	Scattered
Streptacaccal inf.	1130	5502	7841	Dubuque,
Tuberculasis				Jahnsan, Lee
tatal ill	7	47	74	Palk, Henry
bac. pas.	5	34	32	Palk
Ganarrhea	549	2062	2261	Palk, Scatt,
	.,			Waadbury
Syphilis	30	100	158	Palk, Lee
P. & S. Syphilis	6	19	1 <i>7</i>	Siaux,Palk,
				Appanaase

Laboratary Virus Diagnasis Without Specified Clinical Syndrame Cytamegalavirus—1, Eatan's Agent infection—5, Herpes simplex—12, and Herpes zaster—1.

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About IOWA Physicians

Dr. David Wall, Sr., Ames, was honored at a recent dinner sponsored by the Story County March of Dimes. The occasion marked the announcement of a \$1,000 March of Dimes scholarship to be awarded annually in the name of Dr. Wall. The scholarship is for a Story County high school senior whose college study will be in a health-related field. . . . Dr. Ralph R. Pray, Des Moines, was named a Fellow of the American College of Physicians at the 59th annual meeting of the group in Boston, Massachusetts, in April. . . . Dr. George Caudill, Des Moines, was guest speaker at a recent meeting of the Jasper County Registered Nurses Association. His topic "Dealing With the Allergic Child."... Dr. Howard B. Latourette, professor of radiology at the U. of I. College of Medicine, participated in a recent conference on "Living With Cancer," for clergy in Clinton, Jackson, Jones and Cedar counties. The conference was sponsored by the Iowa Division, American Cancer Society. . . . Dr. Robert M. Carney, Grinnell, has been elected for an entry in the 1977-78 edition of Who's Who Among Black Americans. Dr. Carney was selected for distinguished career achievement. A graduate of Meharry Medical College in Nashville, Tennessee, Dr. Carney interned in Cedar Rapids and practiced in Brooklyn prior to locating in Grinnell.

Dr. William W. J. Chen began the private practice of internal medicine in Muscatine in May. Dr. Chen received the M.D. degree at Taipei Medical College and came to the United States in 1969. While at West Virginia University Medical Center from 1969 to 1976, he received a Ph.D. in pulmonary medicine; completed his internal medicine residency; and was an instructor in medicine. For the past two years, Dr. Chen has been on the staff at Veterans Administration Hospital in Asheville, North Carolina. . . . Dr. J. J. Kivlahan was elected president of the medical

staff at St. Francis Continuation Care and Nursing Home Center. Other officers are Dr. R. E. Kellogg, vice president and Dr. K. R. Smith, secretary-treasurer. All are Burlington physicians. . . . The following Cedar Rapids physicians participated in a one-day conference on total hip and knee replacements—Drs. Montague Lawrence, C. H. Stark, David Naden and Albert Coates. The conference was sponsored by the Association of Operating Room Nurses of Iowa. . . . Dr. Thomas C. Perry will become associated with **Dr. Keith Garber** in family practice in Corydon in July. Dr. Perry received the M.D. degree at Hahnemann Medical School in Pittsburgh, Pa., and completed his family practice residency at McKeesport Hospital in Pittsburgh, Pa. . . . Dr. Harold Brenton has been named president of North Iowa Medical Center in Mason City. Dr. Ki T. Song was chosen president-elect; and Dr. John MacGregor, secretary-treasurer. All are Mason City physicians. . . . Dr. William C. Keettel, professor in the U. of I. Department of Obstetrics and Gynecology, was the first Carl Huber Visiting Professor and Lecturer at the Indiana University Medical School in April. While in Indianapolis, Dr. Keettel also participated in the dedication of the Carl Huber Library and the postgraduate course of the Indiana Obstetrical and Gynecological Society.

Dr. Rosalie Neligh, Council Bluffs, has been reappointed to a second term on the State Board of Medical Examiners. Dr. Neligh became the first woman to serve on the Board in 1975. . . . Dr. Larry Fane, Mason City, was guest speaker at a recent meeting of the Hamilton County Association for Children with Learning Disabilities. Dr. Fane's topic "An Update on the Role of the Physician in Learning Disabilities." . . . Dr. Drew Sieben recently joined Dr. F. E. Giles to practice urology in Fort Dodge. Dr. Sieben received the M.D. degree at the University of Il-

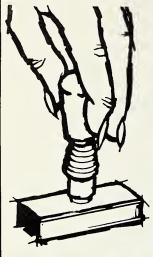
linois School of Medicine; interned at St. Francis Hospital in Peoria, Illinois; and completed his residency at the University of Louisville School of Medicine in Louisville, Kentucky. . . . Dr. Richard Quetsch is president of the Linn County Medical Society. Other officers are—Dr. William Galbraith, president-elec; Dr. Percy Harris, vice president; and Dr. John Lohnes, secretary-treasurer. All are Cedar Rapids phuysicians. . . . Dr. Fred G. Smith, Jr., professor and head of the U. of I. Department of Pediatrics, has been named president-elect of the American Society of Pediatric Nephrology.

Dr. Max Quaas, family practitioner, joined Medical Associates in Decorah in April. A native of Alburnett, Iowa, Dr. Quaas received the M.D. degree at U. of I. College of Medicine; and served his family practice residency at the University of Minnesota. Dr. Quaas has practiced the past year and a half in Kalispell, Montana. . . . Dr. Janet Wilcox, Iowa City, was selected "First Lady of the Year" at a founder's day celebration of Beta Sigma Phi sorority in Iowa City. Dr. Wilcox, a student health physician at U. of I., received the honor in recognition and appreciation of distinguished community service. . . . Dr. Robert Barry, Cedar Rapids, spoke on skin cancer at a recent meeting of the Linn County Unit of the American Cancer Society. . . . Dr. Kenneth Zichal will begin family practice in Elkader in July. Dr. Zichal received the M.D. degree at U. of I. College of Medicine and completed his family practice residency at Lutheran General Hospital in Chicago. Dr. Zichal will be under a two-year contract with the National Health Service Corps. Dr. Frank S. Downs, Boone, has been named a diplomate of the American Board of Family Practice. . . . The Family Practice Center, 441 East San Marnan Drive, Waterloo, was officially opened May 7. The center is the training site for the Black Hawk Area Family Practice Residency Program. The first class of five residents begins July 1. The residency program is sponsored by the four Waterloo-Cedar Falls Hospitals and is affiliated with the U. of I. College of Medicine.

Dr. R. E. Creagh, Des Moines, recently received his 3rd Physician's Recognition Award presented by the American Medical Association.
... Dr. Stuart R. Winston, Des Moines, has joined Drs. John T. Bakody and Robert C. Jones in the practice of neurological surgery. Dr.

Winston received the M.D. degree at Northwestern University Medical School; interned at Illinois Research and Educational Hospitals in Chicago; and had his residency at Northwestern University Hospitals. . . . Dr. Elmer L. De-Gowin, professor emeritus of internal medicine of U. of I. College of Medicine, was presented the American College of Physicians' Certificate of Recognition at a recent U. of I. symposium on hematology and endocrinology. The symposium followed the spring meeting of the Iowa Region of the ACP and the Iowa Society of Internal Medicine. . . . Dr. Donald W. Powers, Ames, was guest speaker at the May meeting of the Wright County Medical Society. Dr. Powers' topic "Isoenzymes in Coronary Artery Disease." . . . Dr. Verne L. Schlaser, longtime Des Moines family practice physician, retired from active practice July 1. Dr. Schlaser was honored recently for his 38 years of private practice in Des Moines at an open house at the East Des Moines Family Care Center. Dr. Schlaser received the M.D. degree at U. of I. College of Medicine and interned at Iowa Lutheran Hospital in Des Moines. He is a past president and past secretary of the Iowa Medical Society.

Dr. William Hunter recently joined the Radiology Department at Grinnell General Hospital. Dr. Hunter received the M.D. degree at Howard University in Washington, D. C., and served his residency in radiology at Case Western Hospital in Cleveland, Ohio. . . . The following Sioux City physicians served as faculty members at recent Woodbury County Medical Society seminar— Drs. Theodore Roman, Kent Rogers, John A. Wolpert, Michael F. E. Jones, David W. Lucke, John Gaeke and Keith McLarnan. Dr. Robert A. Boldus was seminar chairman. The one-day event provided physicians with "close to home" continuing education. Medical seminar topics included—neonatal jaundice, serous and secretory otis media, pulmonary artery pressure monitor, scrotal masses, grand mal/petit mal clinical applications of assisted circulation and anesthesia for patients with muscle diseases. Dr. Fred G. Smith, Jr., professor and head of the Department of Pediatrics at U. of I. College of Medicine, was the visiting faculty member. His subject "Current Concept of Diagnosis and Management of Collagen Vascular Disease in Children." . . . Dr. Steven M. Readinger has joined Drs. Harold Rankin and Warren Scott at the Mt. Pleasant Medical Clinic. Dr. Readinger received



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the M.D. degree at U. of I College of Medicine and completed his residency at St. Francis Hospital in Peoria, Illinois.

Dr. Melvin G. Bourne, longtime Algona physician, recently was named an honorary member of the Algona National Honor Society. A 1919 graduate of Algona High School, Dr. Bourne practiced medicine in the community for 42 years before retiring in 1973. . . . Dr. Richard A. Lloyd, dermatologist, recently joined the McFarland Clinic in Ames. Dr. Lloyd received the M.D. degree at U. of I. College of Medicine; interned at Hennepin County General Hospital in Minneapolis; and completed his residency in dermatology at the University of Minnesota. . . . Dr. J. B. Dressler, Ida Grove, retired from active practice May 31. Dr. Dressler received the M.D. degree at the University of Nebraska School of Medicine and opened his office in Ida Grove in 1939. . . . Dr. Michael Miriovsky has joined Drs. Edward Jacobs, James Burke and Milton Van Gundy in family practice in Marshalltown. Dr. Miriovsky received the M.D. degree at the University of Nebraska College of Medicine and completed his family practice residency in Cedar Rapids.

DEATHS

Dr. S. W. Barnett, 82, Cedar Falls, died May 2 at the Cedar Falls Lutheran Home. Dr. Barnett received the M.D. degree at Northwestern University School of Medicine and interned at St. Luke's Hospital in Chicago. He began his practice in Cedar Falls in 1925 and wrote a book about his 50 years of practice entitled, "Unseen Battles of the Night." A former health officer in Cedar Falls, Dr. Barnett was one of the first to introduce school immunization programs for diphtheria and small pox. He was a past president of the Cedar Falls Lions Club; past president of the Black Hawk County Medical Society and life member of the Iowa Medical Society.

Dr. Steve O'Brien, 90, Mason City physician for more than 60 years, died April 29 in a Mason City nursing home. Dr. O'Brien received the M.D. degree and served his residency in ophthalmology and otolaryngology at U. of I. College of Medicine. He began his medical practice in Mason City in 1911, retiring in 1975. Dr. O'Brien was a fellow of the American College of Surgeons; life-long member of the American Board of Ophthalmology and Otolaryngology and life member of the Iowa Medical Society.

Dr. P. A. Nierling, 70, retired Cresco physician, died May 5 at the Evans Memorial Home in Cresco. Dr. Nierling received the M.D. degree at the U. of I. College of Medicine and served his internship in Milwaukee, Wisconsin. He began his medical practice in Cresco in 1937 and retired in 1971. He was a Fellow of the American Society of Abdominal Surgeons and member of the American Society of Clinical Hypnosis.

Dr. Edward F. Kopecky, 56, Cedar Rapids, died May 10 at a Cedar Rapids hospital following a sudden illness. Dr. Kopecky received the M.D. degree at the U. of I. College of Medicine. A veteran of World War II, Dr. Kopecky had practiced in Cedar Rapids since 1951.

Dr. Richard F. Birge, 68, Des Moines pathologist, died May 13 at Iowa Methodist Medical Center. Dr. Birge received the M.D. degree at the University of Nebraska Medical School. He was a former president and secretary of the Iowa Medical Society and a recipient of the IMS Award of Merit for outstanding contributions to organized medicine. He was a member of the Library Club and a director of the Des Moines Center of Science and Industry.

Medical Assistants



by BETTY EHLERT, CMA-A

GOAL-SETTING

(Taken from the text of National President Jeanne Green's inaugural address delivered in San Francisco.)

Goal-setting is a term which is becoming increasingly popular, and certainly it is important to define objectives. But what exactly do we mean by a "goal"? It's agreeing on results to be achieved within a specific time and then deciding upon the activity needed to attain these results. It's an effort to make things happen—it is the process of "becoming," a process fundamental to all human experience. We spend our lives capitalizing on our capabilities—growing in skills and accomplishments, broadening our intellect as our ex-

HONOR TO KATY BLAIR, CMA-C

Katy Blair, CMA-Clinical, Des Moines Chapter President, recently obtained her certification as a registered cardiology technologist. Congratulations!

LINN COUNTY CHAPTER— EDUCATIONAL SEMINAR

The American Association of Medical Assistants, Linn County Chapter, held an educational seminar in March at Mercy Hospital in Cedar Rapids. Maurine Crowley and Margaret Porter, CMA-AC, were seminar chairwomen.

Their interesting program included S. E. Vanourny, M.D., speaking on "What's New in OBGYN"; James Flynn III, M.D., and Joe Adair, M.A., on "Did you hear . . . ?"; Craig Bradke, M.S.W., on "Adult Depression," plus a panel discussion on the Perrine Cancer Care Unit, followed by a tour of the unit.

perience is expanded, and, in general, every day "becoming" a different person—either better or worse, but different. Goal-setting is the technique which can assure that our "becoming" is a positive experience. But there are some ground rules which must be observed to make this process work; a goal must be:

1. Achievable; it does no good to set goals which can't be reached—the goals should thus be based on experience of the past.

2. Measurable; if the goal can't be measured or quantified, how can you tell whether you've achieved 40 per cent, 90 per cent, or all of it?

3. Agreeable to all concerned; it does no good to lead people toward a goal which only you can see—you're likely to turn around and find no one following you.

4. Limited by time; you have to achieve a specified, measurable, and agreed-upon goal within a given period of time for the results to be EFFECTIVE.

1977 FALL CERTIFICATION RESULTS

Ninety-seven candidates passed the basic certification examination administered during the American Association of Medical Assistants annual convention last October. 167 candidates took the test.

The credentialing of these candidates brings to 1,683 the number of certificates awarded during 1977.

This year the examination will be given throughout the United States on two occasions—in the spring (along with the administrative and clinical specialty examinations) and also in the winter.

Applications for the winter examination must be submitted by October 1, 1978, and the test will be offered on January 26, 1979.

22ND ANNUAL AAMA CONVENTION—OCTOBER 23-27, 1978, BOSTON, MASSACHUSETTS

LIST YOUR WANTS

CLASSIFIED ADVERTISING RATE—\$1 per line, \$10 minimum per insertion. NO CHARGE TO MEMBERS OF IOWA MEDICAL SOCIETY. Copy deadline—10th of the month preceding publication.

This is a unique, and challenging opportunity for a FAMILY PRACTITIONER to develop and expand a central department of Family Practice with peripheral satellites for a multispecialty group in North Iowa. Strong support from the other specialties including Internal Medicine, Surgery, Ob/Gyn, Allergy, and Dermatology is available. Attractive community of 32,000 serving needs of 200,000 area citizens. Convenient to Minneapolis, Mayo Clinic, and Des Moines via I-35. Eight miles to Clear Lake, "Iowa's Vacation Capitol." New office building-hospital complex (August, 1978). Second hospital in community newly remodeled and expanded. Teaching opportunities. Partnership after one year. Salary generous. Vacation and Study Time. Pension Plan program. For more information, please mail your curriculum or call collect AC 515-423-4120, and ask for the "Info Pack" from Park Clinic, 116 N. Washington Ave., Mason City, Iowa 50401.

FOR SALE OR LEASE—1,430 square feet office space, Des Moines Medical Center, across from Mercy and close to Lutheran Hospital. For further information call Dianne at 515/244-9141.

FAMILY PHYSICIAN NEEDED—30 minutes S.E. of Omaha. Active practice vacated by GP desiring to specialize. Office space available. Nearby hospital will offer financial incentive and staff will refer all local patients. Active established community with new \$35,000 ambulance with Life-Pak 5 and reliable hospital-trained crew. Write D. Langone, D.D.S., Box 475, Malvern, Iowa 51551 or call collect 712/624-8634.

PART-TIME PHYSICIAN CONSULTANT—Iowa Disability Determination Services Division desires to employ a physician part-time to serve as a medical consultant. Work is varied—includes consultation following a review of disability claimants, scheduling of consultative exams where medical evidence requires, liaison with the medical community. Please contact H. E. Wichern, M.D., Disabilities Determination Services Division, 507 10th Street, Des Moines, Iowa 50309. 515/281-4376.

BOARD CERTIFIED PSYCHIATRIST—with proven training and experience in neuropsychophysiology and biomedical engineering. Job will include evaluation of EEG, DC-EEG, photoplethysmography and DC-photoplethysmography. Troubleshooting, daily maintenance and complete repair of all equipment also expected. Salary commensurate with qualifications. Send curriculum vitae and credentials to—Neurological Institute & Pain Center, 809 Badegrow Bldg., Sioux City, Iowa 51101.

PHYSICIAN'S ASSISTANT—FAMILY NURSE PRACTITIONER, R.N., B.S.—desires relocation in central or eastern Iowa. Seeking a challenging position with active practitioner(s) or clinic group. Write No. 1531, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

MEDICAL DIRECTOR—One of the nation's finest retirement homes is searching for a medical director to replace retiring director. Located on beautiful grounds in a progressive midwest city, this facility serves more than 500 residents in a total retirement-living setting. Levels of care vary from total independent living in new apartments to a new 250-bed intermediate nursing care facility. Office facilities are furnished for physician. In addition, there are also a complete lab and physical therapy department. Interested applicants may apply directly to Dr. Lloyd Latta, Administrator, Friendship Haven, South Kenyon Road, Fort Dodge, Iowa 50501.

COLORADO MOUNTAIN VALLEY FOR SALE—Equidistant from Breckenridge, Denver, Colorado Springs. Abuts on Pike National Forest. Perfect, very private retreat. Contact Hay Creek Ranch, Box 1214, Breckenridge, Colorado 80424.

PSYCHIATRIC RESIDENCY—Vacancies for (PG2 through PG4 only) positions starting July I and September I, 1978 and January I, 1979, for those who have a regular lowa license or can obtain one by reciprocity or via FLEX. Prepare for career in private practice, community clinics or hospital based psychiatry. Emphasis on close supervision of intensive individual and group psychotherapy, OPD, Children's Unit, Adolescent Unit. Neurology affiliation with University of Iowa. The stipends are: 1st year, \$22,360; 2nd year, \$23,478; 3rd year, \$24,674. Intensity and diversity of training program appreciated best by personal visit. Contact T. B. McManus, M.D., Superintendent, Mental Health Institute, Cherokee, Iowa 51012. Equal Opportunity Employer. Call collect 712/225-2594.

MEDICAL DIRECTOR, CLINICAL DIRECTOR, INDUSTRIAL HEALTH and other medical opportunities available on a national basis. Salaries commensurate with experience. Top fringe benefits. Relocation expenses, interview expenses and agency fees paid by employers. Let us help you relocate to the area of your choice. Capital Personnel Service, 614 Central National Bank Bldg., Des Moines, Iowa 50309. Phone 515-283-2545.

OFFICE SPACE AVAILABLE—Physician to share 1,400 square feet in completely equipped office. Adequate for surgical specialties or family practice. Prime location—2130 Grand Avenue, Des Moines, Iowa. Available after 6/1/78. For more information call 515/243-0028.

WANT TO BUY—Office exam room equipment as follows—metal utility tables, metal wall medicine cabinets (2 shelves, 2 doors), large metal wall cabinet, garbage cans, stools (preferably with rollers), exam lights, exam tables, x-ray table, dressing jars, B/P cuffs-wall-mercury, adult scale, flash lights, binocular microscope. Contact Drs. Holzworth, Bell & Shirk, P.C., 4950 Franklin, Des Moines, Iowa 50310. Telephone 515/274-3875 or 515/274-2602.

DIRECTOR WANTED—Accredited Family Practice Residency, University affiliated. Board Certification in F.P. and experience in F.P. residency training desirable. Interested candidates should direct inquiries, credentials and curriculum vitae to Arnold T. Nielsen, M.D., Director of Medical Education, Iowa Lutheran Hospital, University at Penn, Des Moines, Iowa 50316.

CAPE COD: FALMOUTH—Sea, sand and sunshine plus investment opportunities. Doctor's suite and residence. Separate entrance and parking. Wooded acre lot overlooking Woods Hole harbor. Prime residential neighborhood of fine homes. Office rental currently around \$4,500. A sound purchase in this historic town of around 20,000. Property near white sandy beaches, sailing, golf, tennis, shopping. Widow selling. Great vacation/winter retreat. Also, handsome Townhouse Condominium with private swimming, tennis in prestigious area. Harold Bach, R.E. 617/540-0707.

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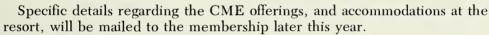
President's Page

While in St. Louis attending the AMA Annual Meeting, I "detoured" to Marriott's Tan-Tar-A Resort (Osage Beach, Missouri) to confirm preliminary arrangements for the 1979 IMS Scientific Session.

I invite you to mark the dates of June 16-21 on your calendar now, and make plans to attend an excellent educational program in an outstanding recreational facility.

The Program Committee held its first planning session July 26. I assure you an effort is being made to arrange a series of presentations that will satisfy a wide range of interests.

There will be ample time for physicians — and their families — to enjoy the many recreational activities available at Tan-Tar-A.



In the meantime, "plan ahead."



Russell S. Gerard, II, M.D., President

IOWA Medical Miscellany

MEET WITH BME . . . IMS representatives conferred July 12 as part of an ad hoc committee of the Board of Medical Examiners on the rules and regulations to be applicable to the new Iowa law having to do with continuing education and disciplinary procedures. These rules are to be ready for the review process by October. The July 12 meeting concerned primarily those procedures the BME will require of licensees and itself in investigating complaints and initiating disciplinary action.

COST CONTAINMENT . . . An organizational meeting of the newly formed Iowa Voluntary Cost Containment Committee occurred July 19 at IMS headquarters. Formation of this body has been spearheaded by the Society and the Iowa Hospital Association. Co-chairpersons are Sister Mary Venarda, administrator of Mercy Hospital in Iowa City, and William R. Bliss, M.D., Ames, secretary of the IMS. Representatives on the Committee are from health care, insurance, business, agriculture and government.

IN WATS REMINDER... Physicians with inquiries are reminded the Iowa Medical Society has installed an IN-WATS line (1-800/422-3070) on which calls may be made.

CME PROGRAMMING . . . On September 23-24, in Chicago, at the Drake Hotel, the Iowa Medical Society will cooperate with the AMA, the Illinois State Medical Society and five Chicagoarea medical schools, to offer a two-day regional continuing medical education program. Postgraduate courses (six hours each) will be offered simultaneously on each of the two days. The courses will qualify for Category I credit toward the Physician's Recognition Award. The courses to be offered include: Primary Care Physician in the Cancer Team, Use of Psychotropic Drugs in Depression, Diagnosis & Management of Acute Cardiovascular Problems, Acid-Base Fluid & Electrolyte Balance, Office Dermatology, Infectious Diseases, Acute Neurological Problems in Daily Clinical Practice, Important New Drugs, Chronic Obstructive Lung Disease, Pulmonary Function & Blood Gases, Cardiac Arrhythmias, Human Sexuality, Current Concepts in Care of the Aging Patient. Requests for further information may be directed to IMS Headquarters.

CLARK AIDE VISITS . . . Senator Dick Clark's health assistant visited Society headquarters July 18 to gather IMS comments and background information on various topics, including physician extenders, medical manpower, cost of care, etc.

IMS/AETNA DIVIDEND LIKELY... An approximate 14% dividend is in the offing for member physicians enrolled in the IMS/Aetna Liability Insurance Program. This good news was disclosed in late June by Account Supervisor Darrel Chapman. The dividend, to be paid in September or October, is subject to approval by the Aetna Board of Directors and the State Insurance Commissioner. The amount of the dividend will be based on the basic or primary level premium which varies by classification. Several other favorable features appear likely to be incorporated into the IMS/Aetna program within the next few months: (1) removal entirely of the percentage

surcharge for partnerships and professional corporations (this was initially 10%, then 5%, now it is to be eliminated); (2) computation of the loss dividend (not to be confused with the administrative dividend mentioned above) will be after three years' experience instead of five as originally announced; this dividend will result from a favorable claims experience; (3) removal of a 25% charge (in addition to the basic premium) made in instances where clinics have physicians in an employed status, and (4) a low-cost new option in the form of a "defendant reimbursement" coverage; this will reimburse a physician for time he is away from his practice to take part in any litigation activity.

Your malpractice insurance is no place to gamble



Key Challenge: Cost of Medical Care

W hat is the most imposing challenge facing physicians today?

It's the "need for individual physicians, in their own private practices, to voluntarily restrain the rate of professional fee increases."

This was the inaugural declaration of Tom E. Nesbitt, M.D., when he became president of the American Medical Association in June.

Aiming at this broad goal of budgetary restraint within health care in the State of Iowa is a 14-member Iowa Voluntary Cost Containment Committee. This body has been together as recently as July 19 at Iowa Medical Society head-quarters to consider the current national cost containment challenge. Formation of the IVCCC has been spearheaded by the IMS and the Iowa Hospital Association. Its members include 3 physicians plus others from both in and out of the health care field. IVCCC co-chairpersons are Sister Mary Venarda, administrator, Mercy Hospital, Iowa City, and William R. Bliss, M.D., IMS secretary and an Ames surgeon.

The IVCCC is guiding implementation within state boundaries of the national voluntary cost containment program. This countrywide private sector response to inflation has had as its catalysts the AMA, the American Hospital Association and the Federation of American Hospitals. A major goal of this voluntary effort (VE) is to reduce the national rate of increase in non-federal short-term hospital expenditures by 2 percentage points both in 1978 and 1979. Pursuit of this goal must not produce a negative impact on the quality of or accessibility to health care.

The importance of the VE, said Dr. Nesbitt, a Tennesseean and now medicine's national spokesman, is apparent when the alternatives are considered, namely approval of "legislative proposals which would impose arbitrary revenue restraints on hospitals, and perhaps extend such restraints to private practice, as some have proposed; if these proposals are enacted, then we can forget all the rhetoric about issues such as health planning guidelines and national health insurance.

"Because if government controls over hospital revenues and professional fees are added to existing controls arising from government's substantial health insurance financing commitments, then for all practical purposes government will, in fact control the quality, and the quantity (in terms of access), of the medical care system as a whole."

Noting public opinion polls which rank *costs* as the major health care concern, the AMA president cites the impact of inflationary pressure on physicians as with the rest of the economy, thus necessitating periodic fee increases. But what physicians can do, he says, "is place realistic restraints on the rate of these periodic escalations, realistic in terms of allowing us to cope with the effects of inflation while maintaining the quality of patient care.

"This request is reasonable because it is asking no more of individual physicians than what we are asking of other components of the medical system. If we expect hospitals to reduce their rate of spending increases by 2 percentage points in each of the next 2 years, for example, then it is proper for us to demonstrate our own sincerity and good faith by moderating our fee escalation rates."

Dr. Nesbitt calls for physician participation in local cost moderation efforts. He points to office efficiency, to peer review and utilization review as areas where physicians can produce economic benefits without jeopardizing quality. He emphasizes that "other segments of society (notably government and the public at large) have to be more responsible in their approaches to cost moderation. . . ."

Challenging all physicians, Dr. Nesbitt said, "Both as individual practitioners, and as a profession made strong through this medical federation of ours, we must help fashion practical, effective answers to problems, with no little emphasis on voluntary answers to cost problems."

This is precisely what the Iowa Medical Society is doing — in cooperation with the Iowa Hospital Association — through the IVCCC. This voluntary effort deserves the interest, understanding and local involvement of member physicians.

In the Public Interest



The Question Box

by GEORGE L. BAKER, M.D.

ADMISSIONS MATTERS

George L. Baker, M.D., is associate dean for student affairs and curriculum in the University of Iowa College of Medicine. In this capacity he is administratively responsible for the admission program. He comments here on the status of applications to medical school and the impact of the recent Supreme Court ruling on the Bakke case.

Nationally, it's being reported that applications to medical schools are declining in number. Is that true at Iowa?

The College of Medicine has had from 400 to 425 applications from Iowa residents in each of the past several years. Since from 90 to 95 percent of our entering class is drawn from this group of Iowans, we have not been affected by whatever decline there might be among other applicants.

For the first time in several years we've had a slight falling-off in the number of women applicants. Even so, nearly a third — 52 out of 175 — of last fall's freshman class were women, and this proportion will probably hold again with this year's class.

Every corner of the state is represented in our student body, of which about one-sixth come from rural areas or towns under 1,000 in population, and one-third come from towns between 1,000 and 10,000. About one-quarter come from cities with populations of 100,000 or more. There's a representative range of parental occupations,

also, with one-fourth being engaged in healthrelated careers, and more than one-half in other professional and business categories.

What special efforts does the College of Medicine make, if any, to assure itself of a representative class?

The State Board of Regents, The University of Iowa, and the College of Medicine are all committed to an admissions program which will assure that qualified students from all segments of American society will have the opportunity to attend medical school. Without establishing or seeking to meet any sort of quota, the 16-member Admissions Committee (predominantly comprised of clinical faculty members) tries to make sure that each year's class includes individuals from disadvantaged backgrounds and other groups which tend to be under-represented in American medical practice.

So the Supreme Court's recent decision in the Bakke case will not require Iowa to make any changes in its admissions procedure?

That is correct. Iowa's program is designed to permit the Admissions Committee to look impartially at the qualifications of all applicants.

Every student admitted exceeds our stated qualifications — and once admitted, all students must meet the same academic standards for promotion and graduation. We make academic assistance available as needed by any student, whether that need is related to a background deficiency or whether it's simply a problem in a particular course or area of study.





by R. M. CAPLAN, M.D.

MEDLINE AND AVLINE

MEDLINE and AVLINE may be "words" that you don't know. But they are words you should know, because they can help you and your colleagues in your efforts at continuing education.

The National Library of Medicine operates a computerized system for search of the medical literature, called MEDLINE, that all of us can use easily. Ever since 1967 most of the world's medical literature has been classified, indexed and cross-indexed, and then stored on computer tape. All that is needed for any of us to get a print-out of journal citations on any topic we desire is to let it be known to the appropriate library. In Iowa the major sources are The Health Sciences Library at The University of Iowa and the library at Iowa State University. The computer system can do a search immediately, or at its "leisure." The telephone and computer charges are a little more if the answer has to be available within the day.

The reference librarian will decide what

categories need to be searched by asking you about the matter you want to look up. If you have a librarian at the hospital where you work, the librarian can convey the request to the regional computer station.

AVLINE is a corresponding system, but instead of providing a print-out of medical article titles on selected topics, the computer will provide a list of audio-visual materials which have been reviewed. The print-out can include the source where the material may be obtained, its cost, a description of the content, the intended audience and in many cases a critique of its quality. For those seeking audio-visual programs for independent study, or for use in group work such as at a hospital or clinic, this may be an extremely helpful service.

The charges to defray telephone and computer costs would ordinarily be about \$5 to \$10 at The University of Iowa and \$10 to \$15 at Iowa State, and can be estimated in advance by the librarian who is helping you.

The telephone numbers are 319/353-5382 at The University of Iowa Health Sciences Library, and 515/294-3642 at the library at Iowa State University.

Make use of this important resource.

Dr. Caplan is Associate Dean for Continuing Medical Education at The University of Iowa College of Medicine.

CONTINUING EDUCATION COURSES & CONFERENCES

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

Diagnostic Ultrasound in Intraocular, September 6-9 Orbital, and Periorbital Diseases

September 14-16 lowg Society of Anesthesiologists

September 15-16 Iowa Academy of Ophthalmologists Postgraduate Conference on Pediatrics September 21-22

September 22

September 22-23

Otolaryngology Clinical Conference Urology Postgraduate

Conference-"Current Concepts in Urolithiasis'

September 28 October 4

Radiation Therapy Seminar **Ophthalmology Clinical Conference**



Prenatal Genetic Diagnosis

DWIGHT P. CRUIKSHANK, M.D.

Iowa City

THE DIAGNOSIS of fetal malformation and disease in utero is one of the rapidly developing areas of medicine. It is now possible to help parents who are at unacceptably high risk of having children affected with a variety of disorders to selectively have unaffected offspring. However, to do this effectively, the physician must know what sorts of conditions can be diagnosed, and when the risks become unacceptably high.

This paper will review those conditions amenable to prenatal diagnosis, describe the methods available, and propose circumstances in which they should be recommended to patients.

METHODS OF PRENATAL DIAGNOSIS

The method most widely used at present is amniocentesis, the withdrawal of amniotic fluid from around the fetus. The cells within the fluid are fetal in origin, and their analysis makes possible the delineation of the chromosomal complement of the fetus and the identification of certain fetal enzyme deficiencies. Furthermore, amniotic fluid supernatent is an extension of the fetal extracellular fluid space, and its analysis provides additional means of determining fetal status.

 $\mbox{Dr. Cruikshank}$ is Assistant Professor of Obstetrics and Gynecology, University of 10wa College of Medicine.

Described here are conditions amenable to prenatal diagnosis, the methods now available, and the circumstances in which they should be offered. The author points out only 10% of lowa patients in 1977 for whom prenatal diagnosis was indicated had genetic studies performed.

Ultrasound examination allows detection of some structural abnormalities without exposing the fetus to ionizing irradiation. As ultrasound technology becomes more sophisticated, more subtle and smaller fetal abnormalities will be detectable by this method.

Radiographic studies may be useful in the detection of certain skeletal abnormalities in the fetus.

The promise of the future in intrauterine diagnosis is direct visualization of the fetus and fetal blood sampling. The fetoscope, a large needle equipped with a system of lenses, can be introduced into the amniotic cavity through the maternal abdomen to accomplish these purposes. The technic is experimental at present, however.

AMNIOCENTESIS

Indications for amniocentesis-chromosomal disorders

Current indications for genetic amniocentesis are summarized in Table I.

Chromosomal abnormalities are present in 50%

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF AUGUST 1978.

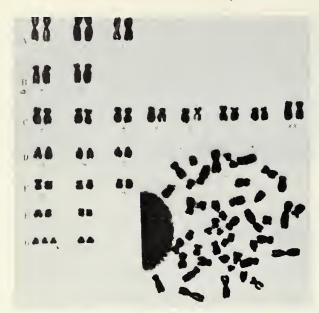


Figure 1. Karyotype of female with Trisomy 21 Down's syndrome, demonstrating three #21 chromosomes.

TABLE I

INDICATIONS FOR PRENATAL DIAGNOSTIC AMNIOCENTESIS

Chramasamal Analysis
Advanced maternal age (37+)
Either parent carrier of balanced translacation
Previous child with chramasamal abnormality
Fetal Sex Determination
Mather carrier of sex linked (X-linked) disease
Alpha-fetapratein Levels
Mather with neural tube defect
Previous child with neural tube defect
Biachemical Testing
Previous child with "inbarn error of metabolism"
Bath parents carriers for certain metabolic diseases

TABLE II

MATERNAL AGE-SPECIFIC INCIDENCE OF DOWN'S SYNDROME

Maternal Age at Delivery	Incidence af Dawn's Am <mark>an</mark> g Live Births
20-24	1:1600
25-29	1:1200
30-34	1 : 880
34	1:527
35	1:413
36	1:333
37	1:266
38	1 : 183
39	1:135
40	1:106
41	1:83
42 +	1:50 (apprax.)

of spontaneously aborted fetuses, 5% of stillborns, and 0.5% (1 in 200) of live born infants. The search for fetal chromosomal abnormalities is the most common indication for genetic amniocentesis, and the most commonly sought abnormality is Down's syndrome (Trisomy 21, mongolism).

The complex of physical and mental abnormalities known as Down's syndrome is caused by the presence of a "triple dose" of the genetic material on chromosome #21. Ninety-seven per cent of infants with Down's syndrome have 47 separate chromosomes, including an extra #21 (47, +21) (Figure 1). The overall incidence of this condition is roughly 1 per 1000 live births, 1 but the frequency increases with advancing maternal age, being less than 1:2300 at maternal age 15-19 and increasing to 1:83 by age 41.2, 3 Table II shows the maternal age-specific incidence of Down's syndrome in detail. The increase with advancing maternal age occurs because of chromosomal nondisjunction in the formation of ova. When a woman is born, all her germ cells (primary oocytes) have already matured to prophase of the first meiotic division—homologous chromosomes have paired and lie parallel to each other in point-for-point association. When ovulation occurs, the first meiotic division resumes, with separation of homologous chromosomes, one chromosome of each pair going to each daughter cell (secondary oocyte). The older a woman becomes, the longer the homologous chromosomes have been in close association with one another, and the more likely they are not to separate and migrate to opposite daughter cells. If both #21 chromosomes migrate to the same daughter cell, an ovum with two #21 chromosomes will result. If this is fertilized by a normal sperm, the resultant zygote is 47, +21, or Trisomy 21—Down's syndrome. Because spermatogenesis, unlike oogenesis, continues throughout life, the frequency of nondisjunction during sperm formation does not increase with advancing age, and the incidence of Down's syndrome is not related to paternal age. As can be seen from Table II, the incidence of Down's syndrome begins to rise rapidly at maternal age 35, and more rapidly at age 37. Some have recommended that amniocentesis to screen for Down's syndrome be offered to all gravidas aged 35 or more, while others begin recommending it at age 37. It is our practice to strongly encourage any gravida aged 37 or beyond to have the procedure, and to perform amniocentesis on anyone aged 35-36 who requests it. At maternal ages less than 35 the incidence of

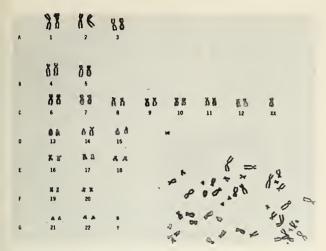


Figure 2. Koryotype of mole with 14/21 translocation Down's syndrome. The third #21 chromosome is attached to one of the #14 chromosomes.

Down's syndrome is low enough that the risks of amniocentesis cannot be justified unless there is a previous history of chromosomal abnormality in the family.

In addition to the mechanism described in the preceding, Down's syndrome can arise from chromosomal translocation. Translocation Down's syndrome accounts for 3% of all cases, and the frequency is not related to maternal age. Patients with this type of Down's syndrome have only 46 separate chromosomes, but they have a "triple dose" of #21 because an extra #21 is attached (translocated) to another chromosome (Figure 2). The chromosome to which the extra #21 is attached can be one of the D group (#13-15) or G group (#21-22). Three-fourths of these cases of translocation Down's syndrome arise de novo during gametogenesis, and the parents of these individuals have perfectly normal chromosomes. However, the other one-fourth of these cases arise in situations in which one parent is a carrier of a balanced translocation (Figure 3). These carriers have only 45 separate chromosomes, but are phenotypically normal and have a full complement of genetic material, because one of their #21 chromosomes is translocated onto another chromosome of the D (#13-15) or G (#21-22) group. Carriers of balanced translocations may form 4 different types of gametes (Figure 4), and when these are united with a normal gamete during fertilization, three different types of offspring may result: 1) a normal individual with normal chromosomes, 2) a phenotypically normal individual who is a carrier of a balanced translocation, or 3) a child with translocation Down's syndrome. (The fourth possibility is a zygote with

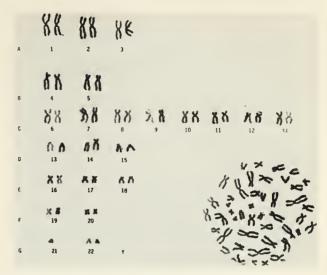


Figure 3. Koryotype of bolonced 14/21 translocation corrier, mother of child in Figure 2. There is only one separate #21 chromosome—the other is ottoched to one of the #14 chromosomes.

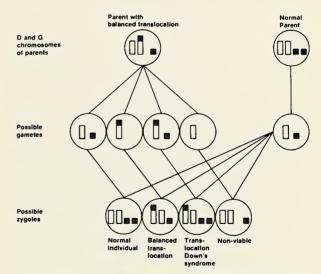


Figure 4. Gometogenesis and possible offspring of a bolonced translocation carrier. The large white rectangles represent chromosome #14, and the small block ones #21.

only one #21 chromosome—an autosomal monosomy. These are non-viable and always result in spontaneous abortion). Thus it would seem if either parent is a carrier, the risk of having a child with translocation Down's syndrome would be 1 in 3 (33%). However, it has been found empirically that the risk, although substantial, is not this great (see below).

It is very important that karyotyping be done on the peripheral blood of any child with Down's syndrome, for only with this information can the parents be given accurate estimates of possible recurrence risks (Table III). If the child is found to have Down's syndrome on the basis of "standard"

TABLE III

RECURRENCE RISKS—PREVIOUS CHILD AFFECTED WITH DOWN'S SYNDROME

(Risks are in addition to maternal age-specific risks)

1%
1%
2-3%
10-15%
100%

TABLE IV
SOME CHROMOSOMAL DISORDERS IN MAN

Disarder		Frequency Amang Live Births
	Autasamal	
Trisamy 21 (G)	Dawn	1:1000
Trisamy 18 (E)	Edwards	1:7500
Trisamy 13 (D)	Patau	1:15000
Deleted shart arm 5 (5p-)	Cri du chat	rare
	(cat cry)	
	Sex Chramasamal	
45X (45XO)	Turner	1:8000 females
47XXX	Triple-X (super female)	1:1000 females
47XXY; 48XXXY	Klinefelter	1:1000 males
47XYY		1:1000 males

Trisomy 21, the chance that the parents' next child will have Down's syndrome is 1%, in addition to the maternal age-specific risk. For example, the recurrence risk for a woman age 35 who has had a previously affected child would be 1% + 1/413 (age-specific risk), or about 1.25%.

If karvotyping reveals the affected child to have translocation Down's syndrome, both parents should be karyotyped to ascertain if either is a carrier of a balanced translocation. If neither is a carrier, the risk of a recurrence of Down's syndrome in a subsequent pregnancy is 1%. If the father is a carrier of a 13/21, 14/21, 15/21, or 21/22 balanced translocation, the recurrence risk for subsequent children is 2-3%, while if the mother carries one of these balanced translocations the recurrence risk is 10-15%. If either parent carries a balanced 21/21 translocation (the two #21 chromosomes attached to each other), then this person can form only two types of gametes—those with two #21 chromosomes and those with none. Since those with none form non-viable zygotes, the recurrence risk of Down's syndrome if either parent has a balanced 21/21 translocation is 100%.

Because of the high recurrence risks after birth

TABLE V

SEX-LINKED (X-LINKED) RECESSIVE DISORDERS

Hemaphilia A
Hemophilia B (Christmas disease)
Muscular dystraphy, Duchenne type
Agammaglabulinemia (Swiss and Brutan types)
Nephragenic diabetes insipidus
Fabry's disease
Lesch-Nyhan syndrame
Hunter's syndrome

of a child with any type of Down's syndrome, all women with previously affected children should have amniocentesis in subsequent pregnancies. Likewise, women who have delivered children with any other chromosomal abnormality (Table IV) should have amniocentesis in subsequent pregnancies, because the recurrence risk for each of these is approximately 1%.

Accurate diagnosis of all previously born anomalous or retarded children is very important. Some of these defects may be due to chromosomal abnormalities, and thus be diagnosable by amniocentesis in subsequent pregnancies.

Indications for amniocentesis-fetal sex determination

Sex linked (X-linked) recessive disorders are transmitted by genes located on the X chromosome, and thus usually affect only males. Females, having two X chromosomes, are affected only if homozygous (abnormal gene on both X chromosomes), a very rare situation. Thus X-linked diseases are characterized by four features: (1) only males are affected, (2) there is no father-to-son transmission of the disease, (3) all the sons of affected fathers will be normal, and all the daughters will be carriers, and (4) one-half of the sons of carrier mothers will have the disease and one-half will be normal, while one-half the daughters will be carriers and one-half will be normal.

Some X-linked diseases are listed in Table V. Any woman who is a carrier of one of these should have amniocentesis for fetal sex determination. If the fetal sex is found to be female, the parents can be reassured that the child will not have the disease (although there is a 50% chance she will be a carrier), while if the fetus is male they will know there is a 50% chance he will be affected by the disease.

At present this is the best that can be offered for the pre-natal diagnosis of X-linked diseases.

TABLE VI
NEURAL TUBE DEFECTS—RISK OF AFFECTED OFFSPRING

3-5%
3-5%
8-12%

However, in the future, fetoscopy and fetal blood sampling will make it possible to ascertain which male fetuses are affected with certain diseases and which are normal. This is already being done experimentally in male fetuses at risk for Duchenne's muscular dystrophy.

Before amniocentesis is undertaken for this purpose, one must be certain of the diagnosis, for some non-X-linked disorders have features similar to X-linked diseases. It is also imperative to be certain that the mother is indeed a carrier. Prior birth of a son with one of these disorders is proof that the mother is a carrier. For some disorders, notably Duchenne's muscular dystrophy, prepregnancy testing (muscle biopsy, serum levels of creatine phosphokinase) may establish carrier status before any affected sons have been born.

Indications for amniocentesis—alpha-fetoprotein determinations

Alpha-fetoprotein (AFP) is a glycoprotein synthesized in large quantities by the fetal liver in early gestation. Its function is unknown, but it accounts for 90% of the fetus' total serum globulin at 12-16 weeks gestation. It is also present in amniotic fluid, maximal levels occurring at 14-16 weeks gestation, after which it declines to very low levels at term (Figure 5).

In 1972, Brock et al4,5 demonstrated that the amniotic fluid surrounding fetuses with open neural tube defects (spina bifida, meningomyelocele, anencephaly) contained very high levels of alpha-fetoprotein, greater than three standard deviations above the mean. Prior to 24 weeks gestation, using amniotic AFP levels, the diagnosis of anencephaly has not been missed in any fetus studied to date. Also prior to 24 weeks, 90% of all cases of spina bifida have been successfully diagnosed—the only lesions which have not been diagnosed by amniotic fluid AFP are the 10% of spina bifidas which are "closed" (covered by skin). Therefore, prior to 24 weeks gestation the false negative rate of detection is zero for anencephaly and 10% for spina bifida. After 24 weeks AFP levels fall so rapidly in the amniotic fluid of both normal and affected fetuses that it is no longer diagnostically useful. The false positive rate (ele-

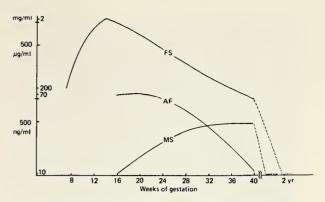


Figure 5. Amniotic fluid (AF), fetal serum (FS), and maternal serum (MS), levels of alpha-fetoprotein throughout gestation.

vated amniotic fluid AFP associated with a normal fetus) is very low—0.2%. Contamination of amniotic fluid with fetal blood causes falsely elevated AFP values, but this complication can be detected by screening the fluid for the presence of fetal hemoglobin.

Neural tube defects are the most common major malformations of the central nervous system, with an incidence of 1/300-500 pregnancies in the United States. Nearly 8,000 infants with one of these defects are born each year in this country. Approximately one-half of these infants are stillborn or die in the immediate neonatal period, and 87% die before age 12.

Neural tube defects are inherited in a polygenic fashion rather than according to strict Mendelian patterns. A woman who has spina bifida occulta or a surgically repaired meningomyelocele has a 3-5% chance of giving birth to a child with a NTD.⁶ A woman who has previously had a child with a NTD has a 3-5% chance of a recurrence in a subsequent pregnancy, while a woman who has had two affected children has an 8-12% chance of recurrence in each subsequent pregnancy (Table VI). Neural tube defects do not breed true—anencephaly may be followed by spina bifida in a subsequent pregnancy, and vice versa.

It is becoming apparent that many cases of fetal NTD are associated with elevated maternal blood levels of AFP. Hopefully in the near future it will be possible to screen the entire population of pregnant women using this test, but it currently remains experimental. At present the only reliable diagnostic technic is amniocentesis, and this should be offered to any gravida who has a neural tube defect or who has had a previous child with anencephaly, spina bifida, meningomyelocele, encephalocoele, or iniencephaly.

TABLE VII

SOME METABOLIC DISEASES DIAGNOSABLE BY AMNIOCENTESIS

Disarders of mucapalysaccharide metabalism

Hurler's syndrame (gargaylism)

Hunter's syndrame

Sanfilippa's syndrame

Disarders of carbahydrate metabalism

Glycagen starage disease, Type II (Pampe's disease)

Glycagen starage disease, Type IV

Galactasemia

Disarders of lipid metabalism

Tay-Sachs disease

Sandhaff's disease

Gaucher's disease

Caocher's disease

Niemann-Pick disease

Metachramatic leukadystraphy

Krabbe's disease

Disarders of amina acid metabalism

Arginasuccinicaciduria

Cystinasis

Cystinuria

Maple syrup urine disease

Hydrocephalus is not a neural tube defect in the same sense as anencephaly and spina bifida. Hydrocephalic fetuses do *not* have increased amniotic fluid levels of AFP, and amniocentesis is *not useful* in the prenatal diagnosis of hydrocephalus.

Indications for amniocentesis-metabolic diseases

Most of the "inborn errors of metabolism" are autosomal recessive disorders (although a few— Hunter's syndrome, Fabry's disease—are Xlinked recessive) and none are common. Some are peculiar to certain ethnic groups (i.e. Tay-Sachs disease in Ashkenazi Jews). Being autosomal recessive, both parents must be carriers of the trait to have an affected child, and if both are carriers the risk of having a child with the disease is 25%. Birth of a previously affected child is proof that both parents are carriers. In addition, the carrier state of some of these disorders (notably Tay-Sachs disease) is detectable through biochemical testing of the parents. Women carriers of Tay-Sachs disease can only be detected when not pregnant, however.

Nearly all of these disorders are enzyme deficiency states, and thus are potentially amenable to prenatal diagnosis through amniocentesis. Amniotic fluid can be centrifuged, and the recovered cells (which are fetal in origin) grown in tissue culture. After an adequate period of growth, the tissue culture may be analyzed for the enzyme in question. If it is absent the fetus can be diagnosed as having the disease.

Examples of metabolic diseases which have been successfully diagnosed by amniocentesis are shown in Table VII. Numerous other disorders are potentially diagnosable. Thus any couple which has previously had a child with one of these disorders, or who are both known to be carriers, should be offered diagnostic amniocentesis in every pregnancy.

Amniocentesis-technic, hazards, complications

The optimal time for performance of genetic amniocentesis is 15-16 weeks gestation (15-16 weeks from the first day of the last menstrual period). Prior to this time the small size of the uterus and the scant amount of amniotic fluid make the procedure technically difficult. Furthermore, there are often too few fetal cells in the fluid prior to 15 weeks to allow meaningful results to be obtained. Most of the amniotic fluid analyses described above require 2-4 weeks for completion. Thus it is important to do the procedure early enough in pregnancy to allow time for results to be obtained and still permit termination of pregnancy if the results are abnormal, and the parents desire it. For both medical and legal reasons, pregnancy termination cannot be performed after 24 weeks gestation. Therefore, the very latest that amniocentesis can be performed for genetic diagnosis is 20 weeks gestation.

Theoretical hazards of amniocentesis include spontaneous abortion, amnionitis, fetal puncture, maternal Rh isoimmunization, and maternal bowel or bladder injury. With appropriate precautions, however, the procedure is actually quite safe when performed by an experienced operator. The spontaneous abortion rate due to second trimester amniocentesis is 1/1000 (0.1%), and a large collaborative study has recently demonstrated that the overall pregnancy outcome is no different in women who have had early second trimester amniocentesis and those who have not.⁷

Needle puncture of the fetus certainly occurs, and the frequency increases markedly in those patients requiring more than one attempt to obtain amniotic fluid. The overall incidence of fetal puncture is approximately 5%-10% although it is rare in cases requiring only one attempt at amniocentesis. In most cases of fetal puncture the child is left with a permanent depressed scar (dimple) about 1 cm in diameter (Figure 6). We have seen one case where disruption of a fetal patellar tendon was caused by amniocentesis, and others have reported one case of fetal eye damage.⁸

TABLE VIII UNIVERSITY OF IOWA DEPARTMENT OF OBSTETRICS AND GYNECOLOGY PRENATAL GENETIC DIAGNOSIS CLINIC—1977

Potients hoving omniocentesis	161
Indications for amniocentesis	
Advonced moternol oge, rule out Down's syndrome	110
Previous child with Trisomy 21	14
Previous child with other chromosomol obnormolity	7
Bolonced tronslocation corrier	2
Moternol neurol tube defect	3
Previous child with neural tube defect	18
Fetal sex (mother corrier of X-linked disease)	4
Biochemical testing—metabolic disease	3
Abnormal fetuses identified	
Trisomy 21	1
Mole fetus ot risk for X-linked diseose	3

Ultrasound examination is essential prior to genetic amniocentesis. It allows an accurate estimate of gestational age, which is critical in order to interpret alpha-fetoprotein levels. It permits identification of multiple gestation—if more than one fetus is present, each amniotic sac must be sampled in a complete genetic amniocentesis. Ultrasound also localizes the placenta, so that it can be avoided during amniocentesis if possible. However, an anterior placenta may be traversed with the needle if there is no alternative way to obtain amniotic fluid. With the advent of realtime ultrasound scanning, it is now possible to perform amniocentesis with continuous direct visualization, thus avoiding both fetus and placenta and directing the needle into the largest accumulation of amniotic fluid.

Amniocentesis can cause feto-maternal bleeding, and lead to isoimmunization of an Rh negative mother carrying an Rh positive fetus. For this reason, one unit (300 micrograms) of Rh immune globulin (RhoGAM) is given to unsensitized Rh negative women immediately after amniocentesis if the tap is bloody or if an anteriorly located placenta is traversed with the needle.

Potential problems with genetic amniocentesis include culture failure and diagnostic error. In 2-3% of cases, the fetal cells in the fluid fail to grow in tissue culture. This does not indicate fetal abnormality, but does necessitate repeat amniocentesis. The most common cause of diagnostic error is sampling of maternal cells rather than fetal. This most commonly occurs when maternal urine rather than amniotic fluid is obtained. The bladder is very near the area of the uterus which must be punctured during the early second trimester



Figure 6. Depressed scar on extremity, typical of fetal injury secondary to amniocentesis.

amniocentesis, and therefore it is imperative that the maternal bladder be emptied immediately prior to amniocentesis.

Amniocentesis-medico-legal aspects

Amniocentesis has become an accepted part of prenatal diagnosis, so much so that various courts have now held that good medical practice requires that patients who are at increased risk for abnormal offspring be informed of their risk and advised that amniocentesis is available.

Amniocentesis-implications for Iowa

The 1977 experience of the Prenatal Diagnosis Clinic of the University of Iowa Department of Obstetrics and Gynecology is summarized in Table VIII.

In 1976, 894 babies were born to Iowa women aged 37 or greater,⁹ and presumably a similar number were born in 1977, although the statistics are not yet available. However, in 1977, only 110 amniocenteses were performed to rule out Down's syndrome in gravidas of advanced age. Thus approximately 780 women at markedly increased risk of delivering infants with Down's syndrome did not have the benefit of prenatal diagnosis.

In 1976, 41,570 babies were born in Iowa.⁹ Since the incidence of chromosomal abnormalities is 1/200 live births, approximately 208 infants so affected were delivered. Furthermore,

(Please turn to page 286)

Prevention of Pneumococcal Pneumonia By Immunization With Pneumococcal Polysaccharide Vaccine (Pneumovax)

CHARLES M. HELMS, M.D., Ph.D. lowa City

A SAFE AND EFFECTIVE VACCINE for the prevention of pneumococcal pneumonia is now available for general use. This paper will present relevant information on the vaccine.

PNEUMOCOCCAL PNEUMONIA PROBLEM

The pneumococcus (Streptococcus pneumoniae, Diplococcus pneumoniae) has been recognized as the major cause of community-acquired bacterial pneumonia for decades. Each year the United States has approximately a half million pneumococcal pneumonias at an annual estimated cost to the country of \$100 million in lost productivity and hospitalization. Although mortality resulting from pneumococcal pneumonia has declined strikingly since the introduction of antibiotics, about 50,000 deaths still occur per year due to the disease and the attack rate of the disease has diminished little if at all. 14

Certain patient populations are known to be at increased risk of mortality from pneumococcal

Immunization is now possible for 80% of pneumococcal disease. Summarized here is the vaccine development and the recommended usage.

infection. Mortality is especially high (17%) in cases of bacteremic pneumococcal pneumonia even when appropriate antimicrobial therapy is used.^{4,5} The fatality rate among patients who are over 50 years of age or who have chronic systemic illness is also unacceptably high (28%).^{4,5} Finally, patients of any age with sickle cell anemia, anatomic or functional asplenia, certain congenital or acquired immunodeficiency diseases, and patients receiving immunosuppressive therapy appear to be at increased risk of morbidity and mortality due to pneumococcal infection.⁶⁻¹⁰

At present there appears to be no alternative other than prophylaxis to lessening the risk of fatal outcome in pneumococcal infection.

PNEUMOCOCCAL POLYSACCHARIDE VACCINES

Attempts to prevent pneumococcal pneumonia by immunization date back to 1911 when vaccines composed of whole pneumococcal cells were employed in South African gold miners. These studies provided suggestive, but inconclusive evidence of vaccine efficacy. About 35 years later, the protective efficacy of vaccines (composed of

Dr. Helms is an assistant professor in the Department of Internal Medicine, Division of Infectious Disease, University of Iowa College of Medicine.

pneumococcal capsular polysaccharides) to prevent pneumonia in military recruits and the elderly was demonstrated convincingly. 12, 13 After World War II pneumococcal polysaccharide vaccines were licensed for general use, but were not utilized by physicians and were withdrawn from the market.

In 1967, spurred on by reports of emergence of clinical isolates of S. pneumoniae exhibiting antibiotic resistance,14 the National Institute of Allergy and Infectious Diseases instituted a program for the redevelopment of pneumococcal vaccines under the direction of Dr. Robert Austrian of the University of Pennsylvania School of Medicine. The pneumococcal types responsible for more than 3,500 bacteremic infections in the United States were identified. Fourteen types accounted for 83% of bacteremic pneumococcal infections. The purified capsular polysaccharide of each of these pneumococcal types was prepared, shown to be safe and immunogenic in volunteers, and combined with others into polyvalent vaccines for field testing.

EFFICACY OF MODERN PNEUMOCOCCAL CAPSULAR POLYSACCHARIDE VACCINES

Controlled field trials in South Africa involving 12,000 gold miners have shown the contemporary polyvalent vaccines are 79% effective in preventing radiologically confirmed putative pneumococcal pneumonia and 82% effective in preventing pneumococcal bacteremia caused by the types in the vaccines. 2, 15 Two similar trials of the vaccine in the United States involving 14,900 people have shown analogous findings. 2 Trials in patients with sickle-cell disease and patients with splenectomy have been encouraging as well. 16

SAFETY FACTORS

The more recently developed polyvalent capsular polysaccharide vaccines administered to more than 70,000 people have proved safe. No fatality ascribable to their injection has been recorded. Ninety per cent of injections will be followed by transient minimal discomfort at the site of injection, 35% by local erythema, and 3% by a slight elevation of temperature.

PRESENT VACCINE

Pneumococcal Vaccine, Polyvalant (Pneumovax[®]), Merck Sharp and Dohme) consists of capsular polysaccharides derived from the 14 most prevalent types of pneumococci which account for 80% of pneumococcal disease (i.e., types

1, 2, 3, 4, 6, 8, 9, 12, 14, 19, 23, 25, 51 and 56). Each 0.5 ml contains 50 meg of each polysaccharide type dissolved in isotonic saline solution containing 0.25% phenol as preservative. A dose consists of a single injection of 0.5 ml subcutaneously or intramuscularly.

USE RECOMMENDATIONS

Immunization is recommended for members of the population two years of age and older who are at greatest risk of morbidity and mortality in pneumococcal infection:

1) individuals 50 years of age and older,

- 2) individuals with chronic diseases such as alcoholism, diabetes mellitus, cardiorespiratory, renal, hepatic, neoplastic, neurologic disorders and the like,
 - 3) individuals in chronic care facilities,
- 4) individuals convalescing from severe disease,
 - 5) individuals with sickle cell disease, and
- 6) individuals with anatomic or functional as asplenia.

The vaccine may be administered at any time of year. An injection of vaccine should provide solid immunity within one month of administration. ¹⁷ Reimmunization requirements for the new vaccine are not clear, but studies suggest that immunity may persist as long as three to five years after a single injection. ¹⁸

WARNINGS & CONTRAINDICATIONS

The vaccine will not prevent pneumonia due to pneumococcal types other than those contained in the vaccine. Patients receiving immunosuppressive therapy may not develop the expected serum antibody response. The vaccine has not been shown to be effective in preventing pneumococcal otitis media and is not recommended for this purpose.

The vaccine is contraindicated:

- 1) in pregnancy where the effects of pneumococcal polysaccharides on the fetus are unknown,
- 2) in children less than 2 years old who, in general, do not respond satisfactorily to the capsular types in the vaccine, and
- 3) in cases of known hypersensitivity to components of vaccine.

REFERENCES

The references noted in this paper are available on request from either the author or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

Peritoneo-Jugular (LeVeen) Shunt For Treatment of Ascites

JOHN L. GARRED, M.D. Whiting, Iowa

Described here is a case report involving the LeVeen peritoneo-venous shunt operation. The favorable outcome causes the author to believe greater use of the procedure may be warranted.

THE LEVEEN PERITONEO-VENOUS SHUNT is a reasonably new procedure which appears to provide an excellent way of handling problems with ascites, regardless of the relation to cirrhosis or carcinoma of the abdomen. This case report is provided because of its good result and in the hope it will bring the procedure to the attention of more practitioners. The specially developed pressure sensitive plastic valve is the main mechanism of the new LeVeen peritoneo-venous shunt operation which delivers ascitic fluid continuously into the venous system. The delivery point is the superior vena cava. The procedure is simple and can be done with local anesthesia. It gives significant relief and our patient showed immediate improvement in nutrition and kidney function, as well as blood protein levels. It appears the hepatorenal syndrome and ascites are reversed.

REPORT OF A CASE

The patient is a 75-year-old white male who had a previous stroke. He has been a nursing home resident for a number of years. He developed a sudden and significant weight gain, abdominal distention and signs of peritoneal effusion. At the onset of these symptoms the patient experienced

a significant engorgement and tenderness of the liver. This onset was approximately four months prior to the procedure. Later the liver decreased in size but the fluid persisted. He lost appetite, began vomiting, and lost body mass while his renal function seemed to deteriorate. Attempts to assist with diuretics and other medical means (to control edema) were not beneficial.

Blood enzyme and ascitic fluid studies three weeks prior to surgery revealed: "Moderate elevation of bilirubin and of many of the cellular and ductal enzymes compatible with a combination of diseases involving the liver, such as cirrhosis,

TABLE I

	BUN	К	WBC	Serum Total Prot.
12-4	30.4	2.55		
1-12	17.4	3.1	7,600	
1-13	16.7	3.84	11,600	5.31 Day of surgery
1-14	15.1	2.84		6.21
1-15	14.5	3.64		6.14
1-16	15.4	4.00		5.64
1-30	14.0	4.16	7,400	6.49

metastatic tumor, or any other space taking lesion. The absence of gamma globulin elevation would tend to exclude extra-hepatic duetal obstruction. The presence of the findings in the ascitic fluid would suggest a rather long-standing chronic event. This combination would then appear to leave cirrhosis or metastatic tumor as the likely candidate to cause this disorder. It would appear that clinically cirrhosis is the most likely possibility and, as there is no other direct indication of tumor, cirrhosis is most probable."

It was finally decided to employ the shunt procedure. Under regional anesthesia (using 1%

Dr. Garred is in the private practice of general medicine in Whiting, lowa.







FIGURE 2

Lidocaine), an incision was made in the right upper quadrant of the abdomen and carried down through the external fascia. The muscle fibers were divided, the peritoneum picked up, and a purse string was laid into the peritoneum so when opened a silicone drain could be introduced in the peritoneal cavity. The drain was tied in with the purse string at its upper end. It was attached to the check valve which is the major functioning element of the shunt. The check valve was covered over by muscle within the fascial and muscular wall of the abdomen. An exit tube from the valve was carried subcutaneously up to the neck. The route was infiltrated with Lidocaine and a long biopsy forcep was used to produce a tunnel for the tube.

An incision was made in the neck and the external jugular vein was dissected out. At this point the tube was cut so the open end would extend approximately three inches below the clavicle after insertion in the jugular. This put the open end of the tube in the proper position in the superior vena cava and it was ligated in position. The neck wound was closed so the entire apparatus was subcutaneous. The patient was watched with considerable apprehension as to the possibility of overloading the vascular system. The head of the bed was elevated more than usual, to prevent too rapid flooding of peritoneal fluid into the venous system. In spite of our anxiety about the patient, he presented no problems.

He improved rapidly within two days, and the abdominal fluid began disappearing. Within two weeks the abdomen was quite flat and the patient showed no further evidence of ascites. He immediately showed significant improvement in such blood factors as BUN, protein and his electrolytes returned to normal.

POSTSURGICAL COURSE

The patient's three-plus edema disappeared rapidly. He immediately began eating and his nutrition showed improvement. He was released from the hospital within five days and returned to the nursing home. Approximately two months later he has gained enough muscle strength to be up and around.

COMMENT

The unit directional valve of the LeVeen shunt opens under pressure to allow a pumping action so the patient does not have a sudden large quantity of fluid go into the intravenous stream at one time. X-rays (see Figures 1 and 2) of the patient before and after the shunt reveal he had significant change in the gas pattern and improvement in the appearance of the abdomen. The tubing could be seen on the X-rays and indicates good position. In reviewing the patient's chart and his general condition, it is obvious he would have died had not some further or different effort at correcting his problem been attempted. In a review of the literature on the problems of the shunt

and the ascites, it appears there is no real medical treatment that will produce other than temporary improvement. The portocaval venous shunt represents an extensive surgical procedure this patient might not have survived.

The peritoneal venous shunt acts, in essence, as a physiologic second thoracic duct thus correcting the outflow obstruction of lymph and fluid from the peritoneal cavity.

Prenatal Genetic Diseases

(Continued from page 281)

the frequency of neural tube defects being 1/300-1/500 births, approximately 80-140 Iowans with these disorders were born in 1976. The parents of all of these infants are at increased risk for subsequent abnormal offspring, and all should be offered amniocentesis in future pregnancies.

Comparison of the population at risk with the number of amniocenteses performed reveals a large number of patients who are not obtaining prenatal diagnosis. With increasing physician and patient awareness of recurrence risks and diagnostic capabilities, hopefully this gap will be narrowed in the near future.

ULTRASOUND EXAMINATION

Ultrasound examination can be useful in the diagnosis of certain structural and morphologic abnormalities of the fetus. Conditions such as microcephaly and hydrocephalus, each of which are associated with a 1-3% recurrence risk in subsequent pregnancies, may be detectable if serial ultrasound determinations of the fetal biparietal diameter are performed between 16-23 weeks gestation. Likewise, ultrasonic visualization of the fetal kidneys and bladder may be helpful in the

SUMMARY

In summary, the LeVeen peritoneo-venous shunt is a simple procedure that should be of significant assistance to a number of critically ill patients and at least make them more comfortable, if not give them a number of added months of longevity.

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prenatal diagnosis of conditions such as renal agenesis and familial polycystic kidneys.

RADIOGRAPHIC STUDIES

Some of the osteochrondrodystrophies and certain syndromes associated with limb reduction defects (Holt-Oram syndrome, thrombocytopenia-aplastic radius syndrome) may be diagnosed by radiographic studies at 19-23 weeks gestation. The demonstration of fetal limb abnormalities by this technic is limited by the fact that in some cases the fetal skeleton is not sufficiently mineralized to allow radiographic visualization. However, the finding of normal limbs can be reassuring and these studies should be attempted in any gravida who has previously delivered a child with one of these disorders.

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PROVIDER AGREEMENTS . . . For several months the IMS has conferred with representatives of the State Department of Social Services over the need for signed agreements with Title XIX providers. DSS officials have held this to be a federal requirement. In recent weeks, however, the DSS has received a letter from the HEW regional office specifying benefits from use of

separate provider agreements, but indicating further that use of this mechanism is up to the state agency. The IMS has contended the signing of individual claims for services to Medicaid beneficiaries is a sufficient contractual arrangement. Discussions of the matter will continue as necessary. It appears at this time the existing procedure will be retained.





M. E. ALBERTS, M.D., Scientific Editor

BOOKS AND EDUCATION

Recently while laboring through a move from one residence to another I was impressed by the size of my library. First, I was impressed by the amount of energy it took to pack and transport all the heavy books. Next, I had to ponder which books might be valuable enough to justify their retention. As I sorted and packed many memories came alive. Those memories developed into thoughts of what education really is all about. Our professional education is a complicated venture. We must learn much about science but this must be merged with human traits of sympathy, consideration for differences in people, and a considerable amount of reverence.

There are many quotations about education in Strauss' book entitled FAMILIAR MEDICAL QUOTATIONS that correlated with my thoughts while packing all those books:

"A good education should leave much to be desired."

"Education! Why say it is a stimulant when it has become a narcotic?"

"The great doctors all got their education off

dirt pavements and poverty—not marble floors and foundations."

"One of the chief defects in our plan of education in this country is that we give too much attention to developing the memory and too little to developing the mind; we lay too much stress on acquiring knowledge and too little on the wise application of knowledge."

"To study the phenomenon of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all."

The last of these quotations (from Osler's BOOKS AND MEN) brings it all together into an acceptable concept, which eased my packing efforts. Boxes and boxes of books were moved and rearranged on the shelves. Many books were given away, sadly but gladly. Many new books will be purchased as years pass, either to replace previous editions or to add to the collection of available information. It would be nice if our brains could be programmed to such a fine point that all necessary data could be stored for quick retrieval, but in a previous editorial I commented on the impracticality of this. Books shall continue as they have through the ages as necessary repositories of the accumulation of knowledge.

But, I wish they were not so heavy.—M.E.A.

VENTILATION OF GLUE EARS

Since 1954 it has become increasingly popular to treat seromucinous otitis media with ventilation grommets to reestablish aeration of the middle ear. A recent report from Wales* presents an

* Brown, M. J. K. M., Richards, S. H. and Ambergookar, A. G.: Grommets

interesting controlled study which questions the overall efficacy of this manner of therapy.

Sixty children between ages 4 and 10 years with bilateral seromucinous otitis media were included in the study. There was adequate 5-year follow-up available with 55 of the patients. In this study the diagnosis was firmly established by careful history, otoscopy, pure tone audiometry and microscopic examination of tympanic membranes while the child was under general anesthesia. By random selection, only one ear was drained and a

and glue ear: A 5-year follow up of a controlled trial, J. Royal Soc. Med. 71:353-356, May 1978.

Editorials

(Continued from page 287)

grommet inserted into the tympanic membrane. A careful adenoidectomy was performed at the same time. Then, pure tone audiometry was repeated 48 hours post-operative. Further follow-up was done at 3 month intervals during the first year and then reviewed 5 years later. At each follow-up examination otoscopy and pure tone audiometry were performed, and at the 5-year evaluation impedance measurement was done.

At 3 months, the ventilated ears demonstrated a greater hearing gain than the unopened ear, though the unopened ears did show improvement. At 6 months the hearing level was the same in both ears, and was maintained throughout the 1 year follow-up. At 5 years, hearing was similar in both ears with normal impedance readings. However, there were marked differences in the ap-

pearance of the tympanic membranes. The incidence of tympanosclerosis of the grommeted drums was 42% with no evidence of this finding in unoperated drums. The incidence of thin scars at the site of the previous grommet was 13%. Thus, it would appear that insertion of grommets to ventilate the middle ear in therapy of seromucinous otitis media provides short-term hearing therapy, and that after 6 months the operated ear had no advantage over the unoperated ear for restoration of hearing. At 5 years there was no statistical difference in the ears other than the incidence of tympanosclerosis and scars in the operated ears.

More studies would seem indicated. Will glue ears resolve with adenoidectomy alone? Do decongestants have any value? Is the insertion of grommets of value only in short-term restoration of hearing and does the tympanosclerosis overshadow that response? These questions must be answered by more and larger controlled studies. Will grommets become a measure of the past at some future date?—M.E.A.

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State Department of Health

MATERNAL AND CHILD HEALTH EPSDT ACTIVITIES

The Early and Periodic Screening, Diagnosis and Treatment program (EPSDT) had its beginning in 1967. At that time, Title XIX of the Social Security Act was amended to include a program of preventive health services to be available to children under 21 years of age who were eligible for Medicaid benefits. Those amendments to Title XIX required that a state's Medicaid program include an EPSDT program. This marked the first time preventive services were included in a large national health program in the United States. By February 7, 1972, states operating a Medicaid program were required to provide EPSDT services at least for children under six years of age. On July 1, 1973, states operating a Medicaid program were required to provide EPSDT services to all children under 21 years of age eligible for Medicaid.

Currently, EPSDT programs are conducted in 49 states including Iowa. The Department of Social Services (Bureau of Medical Services) administers the Iowa program. It is the responsibility of the Department of Social Services to determine client eligibility. Those who meet eligibility criteria are given information about the EPSDT program including its purposes and benefits. Client participation in the program is voluntary. Those who decide to participate are informed of all screening providers in their area. If private pediatricians, group practices or clinics are providing screening, for example, the client should know of and understand the choices. Those clients who already have a usual source of medical care are encouraged to arrange an EPSDT visit with

that provider. However, the client makes the selection among screening sources participating in the program.

BEGAN IN 1972

In accordance with national guidelines, the EPSDT program was inaugurated in Iowa in 1972 for children under six and extended in 1973 to include all eligible children under 21 years of age. During the first year of the program, approximately 10,000 Iowa children under six years of age were screened. When the program was extended, approximately 16,000 children under 21 were screened during the first six months.

When the EPSDT program began in Iowa, selected public health nurses were trained to provide EPSDT screening. This was done in those areas of the state needing additional screening providers and where medical society approval had been obtained for the clinic. A total of 10 public health nursing agencies were initially certified as EPSDT screening centers. In order to obtain certification, a nursing agency first received approval from the county board of health to pursue development of an EPSDT component. Next, a medical advisor for the screening program was obtained. Finally, the public health nurses received training in screening procedures and EPSDT clinic operation. The Iowa State Department of Health then notified the Department of Social Services of those nurses completing such training and informed them of counties receiving medical society approval for EPSDT clinics. Public health nursing agencies meeting the criteria were then certified as EPSDT screening centers.

32 IOWA COUNTIES

Currently there are 32 counties where public health nursing agencies operate EPSDT clinics.

Those children with suspected or identified abnormalities are referred to appropriate providers for diagnosis and treatment. The Department of Social Services is informed of children screened and those needing referral so that families may receive assistance in arranging appointments and transportation.

The Department of Social Services has a contractual agreement with the Iowa State Department of Health related to EPSDT. The current contract stipulates the State Department of Health provide four main services for public health nurses involved in EPSDT screening. One is the training of potential nurse screeners in screening procedures and EPSDT clinic operation. Another service is a minimum of two follow-up visits from a public health nursing consultant to those nurses who have recently completed their EPSDT training. The third service provided by the contract is a yearly visit from a

public health nursing consultant to established EPSDT clinics operated by public health nurses. The purpose of this visit is to monitor the clinic's progress and plan for consultation as indicated. Finally, the contract specifies that the Iowa State Department of Health provide yearly educational programs for public health nurses involved in EPSDT activities. These serve to review and expand knowledge relevant to screening.

Since the State Department of Health began training public health nurses in EPSDT screening, over 11,000 children have been screened in such clinics. These clinics exist in areas where physicians are unable to provide screening to all eligible children. In this way, EPSDT clinics operated by public health nurses seek to complement existing community services.

If additional information is desired about EPSDT activities, please contact the Iowa State Department of Health, Personal and Family Health Division.

June 1978 Morbidity Report

Disease	June 1978 Tatal	1978 ta Date	1977 ta Date	Mast June Cases Reparted Fram These Caunties	Disease	June 1978 Tatal	1978 ta Date	1977 ta Date	Mast June Cases Reparted Fram These Caunties
Amebiasis	28	104	67	Baane	Pneumania	187	1629	584	Linn, Scatt,
Chickenpax	239	5561	7353	Scattered					Dubuque,
Canjunctivitis	96	799	1714	Dubuque, Scatt					Woadbury
				Linn, Jahnson	Rabies in animals	9	<i>7</i> 1	62	Scattered
Erythema infectiasum	7	50	49	Clintan, Hardin	Rheumatic fever	2	24	26	Lee, Clintan
				Pottawattamie	Ringwarm, bady	14	182	183	Scattered
GI viral infection	192	12879	16190	Scattered	Rubella	7	47	1 <i>7</i> 3	Palk,
Hepatitis									Pattawattamie
infectiaus	13	83	55	Scattered	Rubeala	2	50	4328	Dubuque,
serum	8	48	65	Scattered					Blackhawk
type unspecified	3	37	18	Cedar, Dubuque,	Scabies	44	687	583	Palk, Webster
				Mills	Streptococcal inf.	513	5776	8352	Scattered
Impetiga	30	467	396	Blackhawk,	Tuberculasis				
				Jahnsan, Lee	tatal ill	8	54	85	Scattered
Infectiaus mana.	54	641	686	Jahnsan, Scatt,	bact. pas.	2	36	43	Palk, Waadbury
				Webster	Ganarrhea	336	2398	2906	Scattered
Influenza-like illness	313	38858	40380	Scattered	Syphilis	23	123	175	Scattered
Meningitis, type unsp.	2	10	6	Baane, Scatt	P. & S. Syphilis	3	22	1 <i>7</i>	Palk, Jahnsan
Mumps	10	120	1253	Scattered					
Pediculasis	27	326	226	Cherakee, Clinton	Labaratary Virus Di	agnasis W	ithaut S	pecified	Clinical Syndran
				Hardin	Cytamegalavirus—3,	Eatan's Ag	ent infec	tian—13,	, Herpes simplex—
Pertussis	1	3		Scatt	and Herpes zaster—1				

Medical Assistants



by BETTY EHLERT, CMA-A



These ore scenes from the 22nd onnuol meeting of the Americon Associotion of Medicol Assistants, lowo Stote Society, Inc., held April 28-30 in Cedor Ropids. The Linn County Chopter served os host. (1) Stote President Morgaret Porter, CMA-AC, Cedor Ropids, ond Notional AAMA President Jeonne D. Green, CMA-A, prepare to install new officers. (2) Mary Ann Joros, Dovenport, treosurer; Morgaret Gordner, Woterloo, secretory; Shirley Anderson, Sioux City, president-elect; Nino Kline, CMA, LPN, Woterloo, vice president; Jeonne D. Green; Jeon Gold, newly installed president, Dovenport, and Morgaret Porter. (3) Siouxland Chopter hod the largest convention delegation. (4) New President Jeon Gold. (5) Mourine Crowley, convention co-chairperson; Dottie Richardson, LPN, convention chairperson, and Lindo McCright, Linn County Chopter president, all of Cedor Rapids. (Peggy Mulvehill, CMA-AC, not pictured, was program chairperson.) Thanks to Linn County for a successful state meeting. The 1979 meeting will be April 20-22 at the Romodo Inn Downtown, Des Moines.

About IOWA Physicians

The following Mason City physicians—Drs. John C. Justin, David L. Little, and Tom Gilman, participated in a symposium on perinatal care in Mason City in June. Two U. of I. faculty members, Dr. Herman A. Hein, associate professor, Department of Pediatrics, and Dr. Dwight P. Cruikshank, associate professor, Department of Obstetrics and Gynecology, were guest speakers.

New officers of the Iowa Clinical Surgical Society are—Dr. Herbert L. Wormhoudt, Ottumwa, president; and Dr. Leonard H. Boggs, Sioux City, secretary-treasurer. . . . Dr. Kenneth A. Hubel, professor of internal medicine at U. of I. College of Medicine, has been elected secretary of the American Gastroenterological Association. At the group's recent meeting in Las Vegas, Dr. Hubel presented a plenary session paper on "Release of Vasoactive Intestine Polypeptide by Electrical Field Stimulation of Rabbit Ileum."

Dr. M. W. Andre Kildare, Des Moines neurologist, has relocated his office in the Iowa Methodist Medical Plaza. . . . Dr. Walter M. **Block**, Cedar Rapids, was guest speaker at recent meeting of the Wisconsin Association of Osteopathic Physicians and Surgeons in Green Bay. His topic was "Cerebral Dysfunctions and Learning Disabilities of Children." . . . The following U. of I. College of Medicine faculty members participated in a recent symposium at Crescent Beach Lodge in Milford — Dr. Albert E. Cram, assistant professor of surgery and director of University Hospitals Burn Unit; Dr. N. P. Rossi, professor of surgery; and Dr. D. E. McDonnell, associate professor of surgery. The program was sponsored by the U. of I. Emergency Medical Services Learning Resources Center. . . . Dr. Raul Ruiz joined the Family Practice Center in Eldora in June. Dr. Ruiz received his medical education in South America; interned at Mercy Hospital in Des Moines and completed his residency in surgery at Des Moines VA Hospital. . . . Dr. William Schulte will begin family practice in Keokuk in September. Dr. Schulte received the M.D. degree at the University of Missouri School of Medicine and completed his family practice residency in Flint, Michigan. . . Dr. James German, director of the Emergency Department at Mercy Hospital in Des Moines, was guest speaker at a recent trauma seminar in Waterloo. Dr. German discussed the role of the paramedic in Iowa.

The children's unit at the Mt. Pleasant Mental Health Institute recently was renamed the "Richard L. Jenkins Child Service Unit," and the education program was renamed the "R. L. Jenkins Youth Service Program." This recognition was bestowed on Dr. Richard L. Jenkins, Iowa City psychiatrist, at a dinner in honor of his 75th birthday. . . . Dr. William D. Trumbower recently began the practice of obstetrics and gynecology in Waterloo. Dr. Trumbower received the M.D. degree at the University of Missouri School of Medicine; interned at the Kansas City General Hospital, and completed his residency at University of Missouri Medical Center. He was an assistant professor in the Department of Obstetrics and Gynecology at the University of Missouri School of Medicine. . . . Dr. Earl Mumford, Sioux City, recently was elected to the board of directors of Morningside College. Dr. Mumford is the current president of the medical staff at St. Luke's Medical Center in Sioux City. . . . Dr. S. M. Korson, superintendent of the Mental Health Institute at Independence for the past 20 years, retired in July. Dr. and Mrs. Korson have purchased a home in Sun City, Arizona. . . . Dr. Richard Bealka has been named acting superintendent of the Independence MHI. . . . Dr. Paul J. Leehey, Independence, recently was honored by the employees of People's Memorial Hospital for 50 years of medical practice in Independence.

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Dr. Donald D. Weir, medical director of the rehabilitation center at St. Luke's Hospital in Cedar Rapids, will become medical director of a regional rehabilitation center in Greenville, North Carolina. Dr. Weir will also be professor and chairman of the Department of Rehabilitation Medicine at the new East Carolina University School of Medicine. . . . Dr. Charles W. Smith, Ir., has joined the staff at the Muscatine Health Center. Prior to locating in Muscatine, Dr. Smith was the chief resident at the family practice center in Chapel Hill, North Carolina. . . . Dr. J. O. Moermond closed his practice in Buffalo Center July 1. Following heart surgery last year, Dr. Moermond gradually resumed his medical practice. He has now been advised to discontinue active practice. Dr. Moermond will remain in Buffalo Center. . . . Dr. George N. Bedell, professor in the Department of Internal Medicine at the U. of I. College of Medicine, has been appointed chairman of the Adult Lung Disease Committee of the American Lung Association. Dr. Bedell is a past president of the American Lung Association of Iowa. . . . Dr. Charles D. Bendixen, Marshalltown, recently led members of the Flying Physicians Association on a tour of Canada and Alaska.

Dr. Maurice Huffman has closed his practice in Humboldt and has relocated in Carroll where he is associated with the Family Health Clinic. . . . Dr. Gary Peasley has opened a practice of urology in Marshalltown. Dr. Peasley received the M.D. degree at St. Louis University Medical School and interned at University Hospitals in Iowa City where he also completed his urology residency. . . . Dr. Craig Gerhart has joined Drs. Rodney Carlson and Dennis Hopkins in family practice in Ankeny. Dr. Gerhart received the M.D. degree at U. of I. College of Medicine and completed his family practice residency at Broadlawns Hospital in Des Moines.

DEATHS

Dr. Burns Byram, 54, Marengo, was killed June 4 when a World War II fighter plane he was flying crashed near Tuxtla Gutierrez, Mexico. A fighter pilot during World War II, Dr. Byram was flying the P-51 back to the United States. Dr. Byram received the M.D. degree at U. of I. College of Medicine and had practiced in Marengo since 1953. He was a member and fellow of the American Academy of Family Physicians; member of

Association of American Physicians and Surgeons; International Association of Coroners and Medical Examiners; Iowa Gynecologists and Obstetricians Society; and Aerospace Medical Association for Advancement of Science and Aerospace Medicine and Allied Sciences. He was certified as an aviation medical examiner for the U. S. Federal Aviation Agency. He was a member of Professional Race Pilots Association; Flying Physicians Association; Aircraft Owners and Pilots Association; Canadian War Plane Heritage, Inc.; and National Aeronautic Association.

Dr. O. L. Frank, 84, longtime Maquoketa physician, died June 21 at Maquoketa Hospital. Dr. Frank received the M.D. degree at U. of I. College of Medicine in 1919. He was a general practitioner in Maquoketa for over 50 years and was chief of staff at the Jackson County Public Hospital for 12 years. Upon his retirement in 1976, Dr. Frank was named chief emeritus. He played on the University of Iowa baseball team from 1916 to 1919, serving as team captain in 1919. Dr. Frank was a 50-year member of Helion Masonic Lodge No. 36 and a life member of the Iowa Medical Society.

Dr. Henry G. Decker, 74, former chief of staff at Veterans Hospital, died at his home in Des Moines on July 5. Dr. Decker received the M.D. degree at U. of I. College of Medicine; studied neurosurgery at Columbia University, becoming a diplomate in neurological surgery in 1948. He also took graduate study at Yale University. Dr. Decker was a member of the Forum Medical Study Club; Library Medical Study Club; American Association of Neurological Surgeons; Central Neuro-psychiatric Association and Iowa Midwest Neurosurgeons Society.

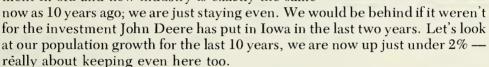
Dr. William A. Bockoven, III, 52, Des Moines, died July 2 of an acute myocardial infarction while vacationing in northern Idaho. After teaching the Psychiatry Department at the University of Iowa, Dr. Bockoven practiced in Ames from 1959 to 1975 when he moved his practice to Des Moines. Dr. Bockoven was a Fellow of the American Psychiatric Association; a past president of Story County Medical Society, the Iowa Psychiatric Association, Iowa Chapter, Association of American Physicians and Surgeons and the Psychiatric Section of the Christian Medical Society. Dr. Bockoven served as a member and chairman of the IMS Committee on Psychiatric Care. He is a native of Cresco, Iowa.

President's Page

We have added numbers to the medical and osteopathic physician population in this state each year since 1972. We are now about 600 ahead of 1972 even discounting the deaths and the physicians who are not in active practice. This has happened as a result of our graduating more physicians and our family practice residency network. It now looks like our medical population in both the rural and urban area will be saturated by 1982 or 1983.

However, to compare, let's look at industrial, corporate, investment and population growth in Iowa.

If we break the yearly investment into present and new industry over the past 10 years, and take into account the inflated dollar, the yearly investment in old and new industry is exactly the same



What is happening, we are losing industry to the Sun Belt just as New England and New York have over the past 20 years. Wisconsin is actively passing tax legislation to attract industry as are the southern states, Iowa is not. Iowa needs better roads too!

All of this is important. Our state is losing farm population through the use of modern farming techniques. Thus, if we don't attract new and enlarge our present industry we will end up with a declining population and an over-supply of doctors.

Therefore, not only do we need to unite, and remain strong as a medical group, but we also must influence and know our senators and representatives to help Iowa grow. Please join your local chamber of commerce and help Iowa grow. I also urge you and your wife to become active in IMPAC.



Anss Gerard MI

Russell S.Gerard, II, M.D., President

IOWA Medical Miscellany

FALL LEADERSHIP CONFERENCE . . . October 18 (Wednesday) is the date of the 1978 Iowa Medical Society Fall Leadership Conference. Key issues of the day, e.g., cost of care, health planning, physician extenders, will be discussed. Max Parrott, M.D., chairman, National Commission on Cost of Medical Care, and past president, American Medical Association, and Walter McNerney, president, National Blue Cross-Blue Shield, will headline the speakers. At Society headquarters, the annual briefing is intended primarily for officers of county medical societies.

NEW MEMBER SEMINAR . . . Those physicians who have become new members of the Iowa Medical Society over the past 12 months are invited to a special briefing on October 17 at IMS headquarters. The organization and special services of the Society will be explained.

NAMED CHAIRMAN . . . John E. Tyrrell, M.D., Manchester, is new chairman of the Statewide Health Coordinating Council. This 30-member body includes representatives from each of the three health systems agencies which incorporate Iowa counties.

APPROVE PLAN... At its August meeting the Statewide Health Coordinating Council approved the State Health Plan compiled by the State Health Planning and Development Agency. The SHP builds on the plans developed and submitted by the three HSA's. The SHP is available to interested physicians on request to the IMS.

GRACE DAYS . . . Iowa hospitals have been urged to hold to one-day grace periods in arranging for post-discharge care. As PSRO, the Iowa Foundation for Medical Care is obliged, along with the delegated hospital, on a case-by-case basis, to authorize any second or third grace day. The IFMC has indicated its need to monitor the use of grace days more closely.

IFMC SHARED STUDY . . . Future topics for IFMC shared study by Iowa hospitals will include abdominal hysterectomy and cholecystectomy (in Group I) and Rh immune gamma globulin administration, IPPB, and tetracycline (in Group II). One topic from each group will be required for study. A telenetwork presentation was made August 2 to 15 sites in Iowa to explain the shared study program.

DELEGATED HOSPITALS... Nine additional Iowa hospitals were approved for PSRO delegated status in June, bringing the number in the state to 114. The recently delegated facilities are in Monticello, Hartley, Sibley, Eldora, Cherokee, Rock Rapids, Pocahontas, Webster City and Grundy Center.

DIABETES MELLITUS . . . A November 17 educational conference on diabetes mellitus is planned at the Family Health Center of Broadlawns Polk County Hospital in Des Moines. The day-long meeting will include physician speakers from St. Louis, the University of Iowa and the University of Nebraska. For additional information contact Director of Medical Education, Broadlawns Hospital, 18th and Hickman Road, Des Moines 50314.

PSYCHIATRIC CARE . . . Ramifications of the new Iowa mental health law (H.F. 2440) were evaluated July 19 by the IMS Committee on Psychiatric Care. The 1978-passed statute calls for organizational modification in the governmental administration of mental health care delivery. The law's implementation will depend in part on further actions to be taken presumably during the 1979 legislative session. Reactions to the new law were received by the IMS committee from various sources including the Departments of Social Services and Health and the Iowa Mental Health Authority.

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CERTIFICATE OF NEED ERA ARRIVES

THE IOWA CERTIFICATE OF NEED law became effective July 1. As a consequence, those facilities or individuals who now wish to increase or expand their health services capabilities (when certain cost parameters are to be exceeded) must obtain the necessary governmental approval (in the form of a CON).

The new Iowa CON statute is a federal mandate tied to the national health planning law (P.L. 93-641).

Emergency rules to cover the Iowa CON law were placed in effect July 26. Public hearings on these rules occurred in August. Now a deliberative process will presumably ensue during which the provisional rules will be considered with any additional suggestions to produce more permanent regulations.

The direct impact of the CON law on the office or clinic of a physician or group of physicians may not be great. It will apply only when the purchase or acquisition of a single piece of new equipment is involved amounting to more than \$150,000.

Applicability of the new CON law in the hospital setting is nearly all-inclusive. Thus, the impact on medical practice will be significant. A CON is required for (1) the construction, development or establishment of a new institutional health facility, (2) the relocation of a facility, (3) an expenditure by or on behalf of a facility in excess of \$150,000 (including leases or donations), (4) a permanent change in bed capacity, and (5) the introduction or deletion of any health service offered on a regular basis within the past year.

Few changes can be made in a hospital without a CON. Consequently, that process involved in obtaining a CON, which is now emerging, should be of interest and concern to all health care providers. The development of more permanent CON regulations will bear heavily on the progress of medical care in Iowa.

By statute a five-member Health Facilities Council becomes most important in the CON era. This body is appointed by the Governor and must consist entirely of consumers. Except for certain appeal possibilities, the HFC has full authority to rule on all CON applications. The State Department of Health will act as the HFC staffing arm. SDH personnel will be empowered to make recommendations to the HFC based on criteria in the law and the rules. In addition, and similar to the SDH, the appropriate health systems agency will review CON requests and be entitled to make a recommendation.

The CON administrative process is in brief: An applicant must submit a letter of intent to the Department of Health and the proper HSA. This letter must describe the project, indicate its location and specify its estimated cost. It must be submitted as soon as possible in the whole planning process (not less than 60 days before the CON application and before the expenditure of \$50,000 or five percent of the estimated project cost, whichever is less). The applicant may request a preliminary review of the letter of intent, this to determine early on if any aspect of the project may bring denial. It is required that a CON applicant be provided all criteria and standards upon which the project will be judged.

Formal application follows the letter of intent. This must be sent simultaneously to the State Department of Health and to the involved HSA. A filing fee is required. Within 15 days, after first checking with the HSA, the Department of Health must notify the applicant as to the completeness of the material submitted. This done. notification will be made that a formal review of the project has been initiated. A public hearing will be conducted.

The involved HSA will have 60 days to review the data and make a recommendation. The HSA and the HFC have a statutory duty to see if less costly, more efficient or appropriate alternatives already exist or could be developed.

The final round occurs when the Health Facilities Council acts according to its judgment. The applicant will be advised immediately of the decision to grant or deny the CON.

As we've said before about governmental health planning, it's a complicated proposition. The preceding is further testimony.

IN THE PUBLIC INTEREST





by LAVERNE A. WINTERMEYER, M.D.

VACCINE UPDATE

Dr. Wintermeyer is Director of Infectious Disease Control and State Epidemiologist for the Iowa State Department of Health.

Just to review, are vaccines available to Iowa physicians from the State Department of Health at this time?

The Iowa State Department of Health provides all vaccines for childhood immunizations to Iowa physicians free upon request. This year single antigen mumps vaccine is available for use among preschoolers. Iowa physicians may order vaccine by either calling 515/281-3479 or writing to: Iowa State Department of Health, Immunization Program, 3rd Floor, Lucas Building, Des Moines, Iowa 50319. All orders are processed at least weekly.

What provisions must be followed when obtaining and using these vaccines?

In supplying the vaccines, it is requested that charges for the immunizations be limited to those for administering the vaccine and that certain forms be completed. They are: (1) "Important Information" form — use is optional but encouraged; (2) "Physician Certification" — required; (3) Vaccine Certification Tally Sheet — required. All of the required forms are a result of purchase agreements between the federal government and

the manufacturers. Instructions are included with each shipment of vaccine.

Is the second year of required vaccination for school entry presenting any concerns?

It is anticipated that meeting school entry immunization requirements will go much smoother this year since immunization will be concerned primarily with kindergarten and transfer students. After the local boards of health review the immunization records in September, physicians can expect inquiries from parents of children who need immunizations or immunization histories. However, the inquiries are expected to be minimal compared to last school year when the law was implemented. A recent change in the rules and regulations does now require that the child's immunization history be recorded on the back of the Certificate of Immunization.

Do the communicable disease reports continue to be favorable?

Yes, measles and mumps are at their lowest levels ever thus far this year. Fifty-two cases of measles have been reported, 38 of those in an isolated outbreak in Jesup. At one point, 8 consecutive weeks elapsed without a single report of measles. As morbidity decreases, serological confirmation of measles and rubella becomes increasingly important as does rapid reporting and follow-up investigation of each case. A toll-free telephone is maintained (1-800/362-2736) for reporting and a well trained field staff is available to assist physicians and local health departments with disease follow-up.





by R. M. CAPLAN, M.D.

OSLER, BEDSIDE TEACHING, AND CME

At about the turn of this century a "revolution" occurred in medical education. The credit for it is generally given to William Osler, although other persons and influences were undoubtedly important, too. Stated most simply, he brought clinical instruction to the bedside. We all seem to think it was a superb improvement. Although less succinct, his own description is worth reading. He stated it thus in a 1902 address to the New York Academy of Medicine:

"In what may be called the natural method of teaching, the student begins with the patient, continues with the patient, and ends his study with the patient, using books and lectures as tools, as means to an end. . . . For the junior student in medicine and surgery it is a safe rule to have no teaching without a patient for a text, and the best teaching is that taught by the patient himself."

Nowadays it is fashionable, and I think appropriate, to think of medical education as a continuing lifelong process. If that is a correct view, and if Osler was correct about the best way to teach, it follows that the practitioner as well as the junior student should have no teaching without a patient for a text. The usual format for continuing education that I and others most commonly prepare for you, and the format you usually attend (I

suspect) consists of lectures and maybe discussions that are almost always separated from and unrelated to any particular patient. It becomes an exercise in the abstractions called disease, diagnosis and management. These sessions have broken loose from their legitimate origins in Mrs. Sam Jones, who has chills and fever, feels lousy and has a very red throat. Together we've violated Osler's dictum, and are teaching without a patient for a text.

I don't say this just because I want you to feel guilty, or because I want you to stop attending CME meetings of the kind we all know and use. Rather, I'd like you to think about using some methods for CME that you and most other practitioners use very little, if at all, and in which actual patients are the basis for the instruction. I refer to the kind of preceptoral instruction that we at the University of Iowa call "individualized traineeship." The learner spends time with his or her mentor engaged in the actual process of patient care, discussing and observing and caring for a very unique Mrs. Sam Jones.

Another way to accomplish the Oslerian ideal in, the domain of CME is to invite whoever comes into your local setting as a teacher to see patients with you in your office or hospital. With you alone or with a small group of colleagues. If you want to ask someone to come your way and "give a talk," OK, but why not be sure you get some of the great advantages of bedside teaching from the resource person. Osler would be pleased. So would I. And

most important, so would you.

PROGRAM POSSIBILITY... An informative program on risk management is available to county medical societies and hospital medical staffs from the IMS. This program is presented by Mr. Darrel Chapman, account supervisor of the IMS/Aetna Liability Insurance Program. The

educational session highlights major causes of liability suits and concentrates on ways of minimizing these exposures. It is beneficial to all physicians regardless of their insurance carriers. Inquiries may be directed to IMS headquarters (1-800/422-3070).

Dr. Caplan is Associate Dean for Continuing Medical Education at The University of Iowa College of Medicine.



Legionnaires' Disease: A Case From Iowa

CHARLES M. HELMS, M.D., Ph.D.,
RANDALL H. STURM, M.D.,
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EDWARD RENNER, Ph.D., and
EARL ROSE, M.D.
lowa City

LEGIONNAIRES' DISEASE is a recently recognized bacterial pneumonia associated with significant morbidity and mortality. It may occur in epidemics or sporadically in isolated cases.

The first recognized outbreak of the disease was in July, 1976 in Philadelphia, Pennsylvania primarily among persons attending an American Legion Convention, hence the name "Legionnaires' disease." One hundred and eighty-two cases of disease were reported with 29 deaths. Retrospectively, outbreaks of the disease of similar magnitude were identified in Washington, D. C. in July, 1965 and in Pontiac, Michigan

This discussion is of what is believed to be the first documented case of Legionnaires' disease in lowa. Its review here, the authors hope, will increase physician awareness of a potentially treatable disease.

in July, 1968.² In the summer of 1977, smaller outbreaks were reported in Ohio, Tennessee and Vermont.³⁻⁹ Outbreaks of Legionnaires' disease have not been confined to the United States; cases have been confirmed in Scotland, Spain and England.^{7, 10, 11}

By the close of 1977 a total of 150 sporadic cases of Legionnaires' disease, including 32 fatalities, had been confirmed by the Center for Disease Control, Atlanta, Georgia. 12, 14 As in the epidemic form of the disease, the great majority of sporadic cases have occurred during the summer and autumn. Cases among men have outnumbered cases among women by a ratio of 3.3 to 1.14

Legionnaires' disease is caused by a bacterium which is distinct from bacterial pathogens previously associated with pneumonia.² It fails to grow in routine bacterial culture media and takes the usual diagnostic stains poorly.^{2, 15} Although described as Gram stain negative, the organism is quite distinct in its structure and properties from the usual Gram-negative bacteria.^{2, 15, 16} The bacterium has been isolated in pure culture from lung tissue and pleural effusion from patients afflicted

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF SEPTEMBER 1978.

The authors are associated with the Departments of Internal Medicine and Pathology of the University of Iowa Hospitals and Clinics and the State Hygienic Laboratory, Iowa City, Iowa 52242.

This study was supported by grant 76-G-14 from the Iowa Heart Association and a grant from the College of Medicine, University of Iowa.

Technical assistance has been provided by Jerry Hudson and Kenneth H. Urban.

with Legionnaires' disease.^{2, 17} In addition, the organism has been detected in diseased lung by special staining techniques.¹⁵ Antibodies to the Legionnaires' disease organism usually arise in an infected patient's serum by the third week of illness.²

This report is the case history of a patient from Iowa who died of Legionnaires' disease. The case was identified as part of a retrospective examination of pneumonias of unknown etiology occurring on the Internal Medicine Service of the University of Iowa Hospitals and Clinics. The clinical and pathologic features of the case are discussed. The importance of considering Legionnaires' disease in the differential diagnosis of pneumonia is emphasized.

CASE PRESENTATION

The patient was from north central Iowa, a 35-year-old woman with a history of collagen-vascular disease. She was first referred to University Hospitals and Clinics in 1973 for evaluation of Raynaud's phenomenon, sclerodactylia, proximal muscle weakness, hoarseness, dysphagia, and weight loss. A clinical diagnosis of mixed connective tissue disease was made and supported by an extractable nuclear antigen (ENA) antibody titer of greater than 1:100,000. Apparent involvement of the integument, joints, arteries, muscles, esophagus, lungs, and liver was documented. The patient was begun on corticosteroids with subjective and objective signs of improvement.

For the next 3½ years the patient was followed by her local physician and by the Collagen Disease Clinic at University Hospitals. Raynaud's phenomenon, digital pain and ulceration were continued problems and treated symptomatically. Attempts to taper corticosteroids were made, but flares in her disease required boosts in dosage on several occasions. The patient developed signs of hypercortisolism; therapy for associated hypertension was begun with thiazide and methyldopa.

In March, 1977, hypercholesterolemia and hypertriglyceridemia were documented. The serum glutamic oxaloacetic transaminase (GOT), glutamic pyruvic transaminase (GPT) and lactic dehydrogenase (LDH) were moderately elevated. The alkaline phosphatase and bilirubin were normal. Fatty infiltration of the liver or methyldopa hepatic toxicity was thought to best explain these enzyme abnormalities and methyldopa therapy was terminated.

In June 1977, the patient was readmitted to the University Hospitals for blood pressure control and evaluation of elevated liver function tests. Her examination at that time was remarkable for a heart rate of 114/min, a blood pressure of 140/104 mm Hg, stigmata of hypercortisolism, sclerodactylia and painful digital ulcers. The rest of the physical examination was normal or unremarkable. The erythrocyte sedimentation rate (ESR) was increased at 42 mm/hr. The complete blood count (CBC) and urinalysis were normal. The fluorescent antinuclear antibody titer was 1:1280 with a speckled pattern, unchanged from clinic visits. The chest x-ray was normal except for a slightly elevated right hemidiaphragm (Figure 1A). The EKG showed sinus tachycardia with non-specific ST-T wave changes. Blood chemistries were normal with the exception of GOT 276, LDH 474, and alkaline phosphatase 128 IU/L. Prednisone was continued at 22.5 mg/day and antihypertensive therapy was altered. Codeine and acetaminophen were prescribed for pain.

On the tenth hospital day, she developed fever to 39.2°C and complained of nausea. Decreased breath sounds over the right base and right costovertebral angle tenderness were noted. The white blood cell count (WBC) was 7,100 with a normal differential. The urinalysis was normal. The chest x-ray was unchanged.

Over the next two days spiking fevers to 40°C continued. Multiple urine and blood cultures were sterile. Throat and sputum cultures grew normal pharyngeal flora. Candida albicans and krusei were cultured from the digital ulcers. Plain films of the abdomen, abdominal ultrasound examination and an intravenous pyelogram were normal.

On the fourth febrile day, the patient developed dyspnea, nonproductive cough, and marked right flank pain. The chest x-ray now showed a right lower lobe infiltrate (Figure 1B). A gram stain of translaryngeal aspirate showed no organisms or cells; cultures for aerobic and anaerobic bacteria and fungi were negative. A decubitus chest film one day later demonstrated a small right pleural effusion. Aspiration of the effusion was attempted without success. The WBC and differential were unchanged; the hematocrit had gradually dropped to 33%. The blood smear showed anisocytosis and polychromasia. The reticulocyte count was 1%. The prothrombin time (PT), partial thromboplastin time (PTT), platelet count and plasma hemoglobin were normal; haptoglobins were increased. Direct and indirect

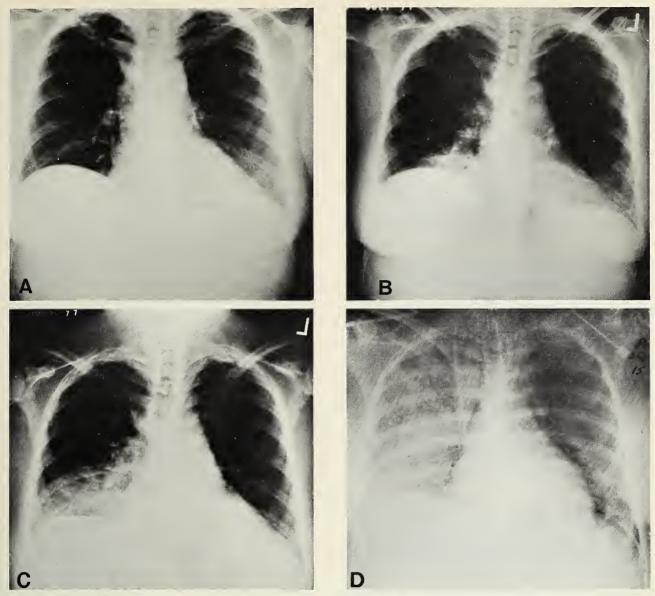


Figure 1. Chest roentgenograms obtained on admission (A), febrile day 4 (B), febrile day 8 (C), and febrile day 15 (D).

Coomb's tests were negative. Tests of nasogastric aspirate and stools for occult blood were intermittently, but only mildly positive. A computerized tomography (CT) scan of the upper abdomen showed no retroperitoneal hematoma. Bacterial pneumonia appeared likely and intravenous penicillin G was started. Gentamicin was added two days later.

The patient became hypoalbuminemic without proteinuria. Serum GOT and LDH were persistently abnormal; the bilirubin rose to 2.4 mg/dl, but the alkaline phosphatase was normal. On the sixth febrile day a radioisotopic liver-lung scan showed the right lower lobe defect in the lung and evidence of diffuse hepatocellular disease, but no evidence of subdiaphragmatic abscess.

On the eighth febrile day the right lower lobe infiltrate had progressed and a retrocardiac left lower lobe infiltrate had developed (Figure 1C). The patient was dyspneic and intermittently confused with PaO2's around 65 mm Hg on face mask oxygen. An intermediate strength PPD skin test was negative. Sputum smears were negative for acid-fast bacilli. Trimethoprimsulfamethoxisole therapy was begun for possible Pneumocytis carinii pneumonia. Fiberoptic bronchoscopy was performed and mucopurulent material was found in the right lower lobe bronchus. Histologic examination of appropriately stained sections of transbronchial lung biopsy showed no P. carinii forms, viral inclusions or acid-fast bacilli. Culture of bronchial washings

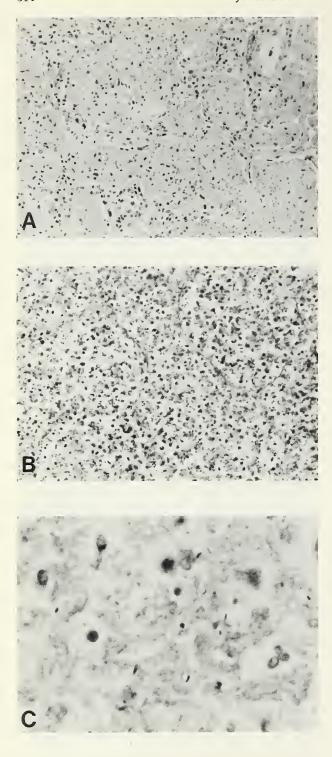


Figure 2. (A) Lung tissue showing abliteration of the alvealor spaces by fibrin deposition. Mananuclear cells are enmeshed in the fibrin. Hemataxylin and easin stain, magnification \times 40. (B) Necratic lung tissue shawing fibrin strands, nuclear debris, and faamy macraphages. Hemataxylin and eosin stain, magnification \times 80. (C) Necratic lung tissue shawing numerous light to dark staining, blunt, pleamarphic bacilli. Madified Dieterle stain, magnification \times 400.

revealed throat flora and small numbers of Candida albicans and Klebsiella pneumoniae.

On the ninth febrile day, the patient was transferred to the Medical Intensive Care Unit where intubation and mechanical ventilation were required to control hypoxia and respiratory acidosis. She was lethargic and tachypneic. Rales were present at both lung bases. The WBC was 12,900 with 78% granulocytes. The cerebrospinal fluid examination was normal and cultures were sterile. Penicillin and gentamicin therapy was discontinued in the absence of evidence of bacterial infection. Trimethoprim-sulfamethoxasole therapy was discontinued when histologic results from the bronchial biopsy became available.

The last six days were marked by fever, intermittent obtundation and myoclonic seizures. The chest x-ray showed progressive involvement of all lung fields with infiltrate (Figure 1D). PaO_2 's were about 70 mm Hg ($FiO_2 = 60\%$). Pulmonary capillary wedge pressures were normal. The WBC ranged from 13,800 to 18,000. The hematocrit dropped to 21%. The platelet count remained normal; PT was 15 seconds; the PTT was normal. Nasogastric aspirates and stools were intermittently positive for occult blood.

By the thirteenth febrile day the serum calcium had dropped from an admission value of 10 to a value of 4.6 mg/dl; similarly the phosphate had dropped from 3.7 to 2.1 mg/dl. The serum albumin was 2.3 g/dl. Infusions of calcium and albumin were given. The serum amylase rose from a normal value of 62 on febrile day 7 to 384 U/dl on day 12. The serum lipase was elevated on day 14. BUN rose from 17 to 52 mg/dl and the serum creatinine from 0.9 to 1.7 mg/dl between febrile days 9 and 15.

The patient became hypotensive on the eleventh febrile day requiring dopamine to maintain blood pressure. On the fifteenth febrile day, just before an open lung biopsy, the patient suffered a fatal cardiopulmonary arrest.

POSTMORTEM FINDINGS

On postmortem examination the lungs were markedly increased in weight: the right lung weighed 1100 grams (normal: 480-680 gm) and the left lung weighed 925 grams (normal: 420-600 gm). Small, clear yellow pleural effusions were present bilaterally. The pleural surfaces were smooth and glistening. Marked, pale-gray, firm and focally hemorrhagic consolidation of the right upper and lower lobes, and the left lower lobe was present. Multiple focal areas of obvious necrosis

were present in the right lower lobe, the largest area measuring $5 \times 3 \times 3$ cm. The bronchi were free of significant fluid. The blood vessels were unremarkable. The hilar lymph nodes were enlarged and appeared hyperplastic.

Light microscopy of the consolidated areas of the lungs showed marked fibrin deposition in the alveoli with obliteration of the alveolar spaces. Enmeshed in the fibrin were numerous foamy macrophages (Type III pneumocytes) and scattered lymphocytes (Figure 2A). The alveolar septa were mildly thickened and edematous, with a mild inflammatory infiltrate consisting of lymphocytes and plasma cells. Occasional neutrophils were present. Multiple large areas of bland necrosis consisting of necrotic lung tissue, fibrin, nuclear debris, and foamy macrophages were present (Figure 2B). Notable was the paucity of acute inflammation in these areas. Lesser involved areas showed interstitial edema, desquamation of pneumocytes, and hyaline membranes. Fibrinous material was also present in small bronchi. Special stains for bacteria, fungi, and mycobacteria were negative. Viral inclusions were not pre-

TABLE I SEROLOGIC STUDIES

	Antibody Titer o	or Result Obtained	on Given Serum Febrile Doy 13
Legionnoires' Diseose	AgentIFA	<1:32	1:512*
Viruses			
Influenzo A—CF		< 1:8	<1:8
Influenzo 8—CF		<1:8	<1:8
Adenovirus—CF		<1:8	<1:8
M. pneumonioe—CF		<1:8	<1:8
Fungi			
Histoplosmo—CF		<1:2	<1:8
—ID		_	Neg
Blostomyces—CF		<1:2	< 1:8
—ID		_	Neg
Coccidioides—CF		<1:2	<1:8
—ID		_	Neg
Aspergillus—ID		_	Neg
Cryptococcus—LA		_	Neg
IFA	\	_	Neg
Porosites			
Toxoplosmo—IFA		< 1:16	< 1:16
8octerio			
8rucello—Agg.		Neg	Neg
Leptospiro—Agg.		Neg	Neg
VDRL		_	Non-reoctive

^{*} Titer rise canfirmed by Center for Disease Cantral, Atlanta, GA.

TABLE II

A8SORPTION EXPERIMENTS USING FEBRILE DAY 13 SERUM

Absorbing Agent	IFA Titer vs. Philodelphio 4 Isolote Following Absorption with Given Agent
None	1:512
Legionnoires' Diseose Agent	1.3.2
(Philodelphio 4)	< 1:1
*K. pneumonioe I	1:512
*K. pneumonioe II	1:512
*C. olbicons	1:512
*C. krusei	1:512

^{*} Nat stroins isoloted fram potient.

sent. Other findings included prominent sinus histiocytic hyperplasia of the hilar lymph nodes, severe fatty metamorphosis of the liver and small infarcts in the spleen. A parathyroid gland and the pancreas were unremarkable. The bone marrow was normocellular with normal maturation of the erythroid and myeloid precursors. Other organs were normal.

SPECIAL STUDIES

Retrospectively, lung sections were examined after staining by the modified Dieterle method. ¹⁹ Numerous brown to black, blunt, pleomorphic bacilli 0.4 to 0.8 μ m in length were demonstrated in necrotic areas; fewer were seen in non-necrotic areas (Figure 2C). The organisms were present within macrophages and also in the extracellular debris. Bacilli of similar size and shape were demonstrable in necrotic areas of formalin-fixed lung tissue by direct immunofluorescent methods employing antisera specific for Legionnaires' disease organism supplied by the Center for Disease Control, Atlanta, GA. ²⁰ No organisms were demonstrated in multiple organs other than lung using the Dieterle stain.

Between the eighth and thirteenth febrile days the patient's indirect fluorescent antibody (IFA) titer against the Legionnaires' disease agent increased from less than 1:32 to 1:512. Serological tests could not demonstrate similar increases in antibody titers to numerous viral, mycoplasmal, fungal, parasitic and other bacterial pathogens (Table I). Furthermore, the antibody produced during the febrile illness could be absorbed from the patient's serum by a Philadelphia isolate of the Legionnaires' disease agent, but could not be absorbed by suspensions of *K. pneumoniae*, *C. albicans*, and *C. krusei*, organisms isolated from the patient at several points in her clinical course (Table 2).

IFA-indirect fluorescence antibody

CF—complement-fixing antibody
ID—immunadiffusion method

LA-lotex agglutination method

Agg.—agglutinatian method

DISCUSSION

Information regarding the epidemiology and diagnosis of Legionnaires' disease has begun to appear in the literature only recently. 1, 2 This patient's clinical presentation is consistent with the few cases of sporadic Legionnaires' disease reported, however. 12-14, 16, 20-22 Her age of 35 years is less than the average of 51.6 years which has been reported, but is well within the range of ages (25-72 years) which has been encountered. 13 Our patient was chronically ill with mixed connective tissue disease and hypercortisolism secondary to corticosteroid therapy. Prior to her infection, her underlying autoimmune disease had involved multiple organ systems including the lungs. At least one case of Legionnaires' disease in a woman with a connective tissue disorder, systemic lupus erythematosus, has been described. 17 In addition, cases have been described among other potentially compromised hosts, such as patients with chronic renal failure, renal homografts, or cancer. 3-6, 8, 9 The case-fatality rate of Legionnaires' disease among individuals with underlying medical illness (29%) is considerably greater than that of healthy individuals (5%).²⁴

The patient developed an acute febrile illness 10 days after admission to the hospital. The incubation period of the disease determined from the Philadelphia outbreak is two to fourteen days. It is unclear, therefore, whether infection was hospital- or community-acquired. The patient presented in the summer. The association of Legionnaires' disease with the summer and early autumn months is striking thus far. It may well be, however, that this early association is spurious, and that as more is learned about Legionnaires' disease, the present seasonal prevalence may not be as clear cut.

Certain symptoms experienced by the patient (nausea, malaise, and dry cough) have all been described in association with Legionnaires' disease. The right flank pain and tenderness probably reflect pleural involvement by the initial right lower lobe infiltrate. Pleuritic chest pain has been reported in association with Legionnaires' disease. 1, 17, 22, 23 The patient's fever ranged from 38-40°C throughout the course of her illness. Fever of this magnitude is typical of Legionnaires' disease. 1 Rales and pleural effusion as seen in our patient have also been described. 1, 17 The initial appearance on chest roentgenogram of a small lobar infiltrate with rapid progression to involve other lobes of the lung has been reported in many hospitalized cases of Legionnaires' disease. Indeed such infiltrates may progress temporarily even as the patient shows clinical signs of improvement.²³ The patient died of respiratory failure, the most frequent cause of death associated with Legionnaires' disease.

Routine diagnostic maneuvers carried out in life to isolate or detect an etiologic agent in body fluids and tissues were not helpful. Retrospective staining of lung tissue from post-mortem examination by the Dieterle silver impregnation method and by direct immunofluorescence methods demonstrated the presence of the Legionnaires' disease organism in diseased tissue. A greater than 16-fold increase in the IFA titer occurred between the eighth and thirteenth days of febrile illness with the maximum titer of 1:512. Experience with this serological test during the Philadelphia epidemic indicates the minimum titer requirement for the serological diagnosis by IFA is 1:64 for patients who have a four-fold rise in antibody titer.²

The patient's course was complicated by progressive normochromic, normocytic anemia, abnormalities of liver function, hypocalcemia and pancreatic enzyme abnormalities. The Legionnaires' disease organism was not identified in bone marrow, liver, parathyroid or pancreatic tissue by Dieterle silver impregnation staining suggesting that these abnormalities were not the result of invasion of these tissues by the Legionnaires' disease organism. The anemia was most likely due to gastrointestinal blood loss and phlebotomy. Liver function abnormalities seem best explained by chronic fatty metamorphosis of the liver, although the etiology is unclear. Unexplained abnormalities of liver function have been reported in Legionnaires' disease¹ and have been observed in cases of lobar pneumonia, particularly those involving the right lower lobe, 25 a feature of this case. Hypocalcemia and apparent chemical pancreatitis observed in the last days of the patient's course are unexplained. The bile duct was patent and histologic sections of the pancreas and parathyroids were normal. Hypocalcemia, hypophosphatemia and hypoalbuminemia have been observed in patients being treated with aminoglycosides such as gentamicin. 26 These abnormalities have usually been associated with low serum magnesium and uric acid levels, the latter not features of this case.

While the Legionnaires' disease organism has been demonstrated to be sensitive *in vitro* to most antibiotics with the exception of vancomycin, ¹⁷ the *in vivo* activity of antibiotics against the or-

ganism has been less clearly explored. Rifampin, gentamicin, erythromycin, and tetracycline have been demonstrated to be effective in protecting embryonated eggs from destruction by the Legionnaires' disease organism.27 Erythromycin and rifampin have been demonstrated to be effective in preventing lethal disease in guinea pigs.27 Finally, retrospective analysis of hospitalized cases of Legionnaires' disease during the Philadelphia outbreak indicates that the case-fatality rate of patients treated with erythromycin and tetracycline was less than that of patients treated with cephalosporins and steroids. 17 Unfortunately, the patient was seen at a time when information regarding Legionnaires' disease itself and antibiotic efficacy was not widely disseminated and a trial of erythromycin or tetracycline was not contemplated.

This, to our knowledge, represents the first case of Legionnaires' disease documented in Iowa. We hope the discussion will stimulate interest in this potentially treatable disease entity and will encourage physicians to consider Legionnaires' disease in the differential diagnosis of community- and hospital-acquired pneumonia. The diagnosis of Legionnaires' disease may be made by:

1) Isolating the Legionnaires' disease agent from appropriate specimens of lung tissue, pleural effusion or non-oropharyngeally contaminated respiratory secretions.

2) staining of appropriate specimens by Dieterle and immunofluorescent stains.

3) demonstrating a rising antibody titer to the Legionnaires' disease agent by indirect fluorescent antibody tests.

The above laboratory services are available through the State Hygienic Laboratory.

REFERENCES

The references noted with this paper are available on request either from the authors or the JOURNAL OF THE IOWA MEDICAL SOCIETY;

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Statewide Medical Care Evaluation Of Bacterial Pneumonia By Iowa Foundation for Medical Care

DURING THE SEVERAL MONTHS preceding December, 1977, 77 Iowa hospitals conducted a medical audit on bacterial pneumonia. The audit was performed for several reasons: (1) to permit the Iowa Foundation for Medical Care (IFMC) to gain experience in statewide audit, (2) to assess the ability of Iowa hospitals to perform medical care evaluation studies, (3) to evaluate the quality of care provided to patients diagnosed as having bacterial pneumonia, (4) to identify the extent to which hospitals are recognizing problems and taking appropriate action, and (5) to identify educational needs for Iowa physicians that might relate to this diagnosis. In addition to fulfilling a commitment of the IFMC in its role as the Iowa PSRO, the study may be used by each participating hospital to meet audit requirements for the Joint Commission on Accreditation of Hospitals (JCAH). The choice of topic, the criteria employed, and the technical features of the audit were developed by the Continuing Medical Education Committee (CMEC) of the IFMC. This is a report to Iowa physicians and hospitals on the audit outcomes judged interesting, instructive, or important by the CMEC.

The CMEC is gratified by this first effort. It is unusual for an area-wide audit to be performed in so many hospitals. The audits were highly variable. Some were technically excellent; a few were poor. The CMEC believes the data support an overall judgment the patients summarized received good care. Collectively, we need to improve our ability to translate new audit data into recognition of problems and to develop appropri-

The trials and tribulations and interesting outcomes of a first broadscale medical audit are set forth. A project of the Continuing Medical Education Committee of the lowa Foundation for Medical Care, the audit involved 77 lowa hospitals. The paper concludes by quoting Twain – you can learn things from swinging a cat by its tail you can learn in no other way.

ate remedies. Even so, over 200 educational efforts were proposed to deal with identified problem areas. Here are examples of the benefits that arose:

• Anecdotal information from several doctors indicates an increased appreciation for more frequent efforts to isolate an organism in blood as well as sputum.

• One hospital found its laboratory failing in too many instances to return information to the hospital record about antibiotic sensitivity studies. A new reporting procedure was developed.

• One hospital developed a procedure whereby a respiratory therapist will assist the effort to obtain satisfactory sputum specimens.

• One hospital, having identified a problem in excess length of stay, has asked its utilization review coordinator to monitor this issue concurrently.

• One hospital reported data gathered by the audit permitted discussion with a staff physician sensed by colleagues to being over-utilized, but no previous objective discussion had ever occurred.

• 58 of 77 hospitals planned a total of 229 educational activities in response to identified needs.

(Please turn to page 319)

This article has been prepared by Richard Caplan, M.D., Jennifer Cofer, R.R.A., M.A., Catherine Condon, M.D., Charles Driscoll, M.D., Robert Pfaff, M.D., Harold Van Hofwegen, M.D., George West, M.D., and Sam Williams, D.O.

AUDIT SITES

The audit was performed in all 59 hospitals "delegated" at that time, plus 18 "nonimplemented" hospitals. The staff at the IFMC performed a "technical assessment" of each of the 77 audits and responded to each hospital with a brief critique of the facility's accomplishments in tallying, analyzing, making appropriate entries in the audit forms, or indicating follow-through actions. During the analysis it became apparent the hospitals were performing the audit with a varying understanding of what was to be done. Consequently, attempts to make precise statements on the results, or to total the figures, or to perform other arithmetic manipulations on the cumulative data for any particular criterion was unjustified and not possible. Conclusions which follow therefore will be quantitative only in the situations where no question or dispute exists about the meaning of the numbers. Pooled data, under such variations in method and local interpretation, can be useful only in very special circumstances that will become clear in the discussion.

GENERAL OBSERVATIONS AND TYPES OF PROBLEMS

1. Problems inherent in any medical audit

- a) There is always the strong suspicion that some even many deficiencies represent lack of documentation rather than performance. (Theoretically, this "error" may be "balanced" in part by the presumed non-documentation of performed events that should not have been performed.) In any case the audit is unquestionably bound to the information available in the medical record.
- b) Medical records personnel, even after efforts at suitable instruction, may variably interpret what is being sought by a particular criterion, and even more variably interpret the words found in the medical record. These varying interpretations may produce either false positives or false negatives.
- c) There is often conceptual difficulty in understanding "percentage of compliance or noncompliance" when the standard is "0%."
- d) Records personnel or medical staff may not understand the logic of "variation justification deficiency," (see following) the language generally employed in the audit process, and thus produce tallies and conclusions that are inaccurate. Also, they may often fail, after the identification of deficiencies, to follow through by spelling out corrective action, implementing the action, and re-auditing to make sure problems are cor-

rected. Sometimes the failure to identify deficiencies arises from the possibly subconscious but mistaken idea the audit is to prove flawlessness rather than to identify problems.

2. Problems created by the CMEC in structuring this particular audit

- a) We chose a complex topic and used too many criteria, at least for a first effort at a statewide audit.
- b) Although we tried to make our criteria clear and precise, we did not always succeed.
- c) We failed to provide hospitals our rationale for including some of the criteria or descriptions. If we had better communicated the logic that guided us, we would have decreased some of the confusion and some of the passion that produced occasional sentiments of "committee idiocy."
- d) In several instances the committee, had it been more clever or farseeing, might have worded criteria, exceptions, or instructions differently and thus reduced effort in the record room, or decreased the number of variations needing study by the local committee. These instances were brought to our attention by a number of Iowa physicians willing to share their perceptions of our efforts. Sometimes we agreed and sometimes not. In all instances we were grateful that some colleagues were thinking so carefully and seriously about the content and process of audit, that they would write us their views.
- e) A few of the criteria were controversial. It may be argued that criteria should be avoided that are not "fully settled" by scientific knowledge or general agreement. A different point of view, however, suggests that some criteria (especially process criteria) represent newer thinking, and the audit looks at whether a staff practices in the "new way." If the criterion be controversial, then the local peer review process can determine if variations are readily justified and not deficiencies. But in the meantime, the pros and cons of the issue have had an airing not otherwise available.

3. Problems due to insufficient understanding of the logic and methods of medical audit as an analytical and quality control tool

a) Physicians sometimes did not list what diagnosis was the primary reason for admission. In such cases, medical records practitioners had to guess; and that opens the door, if not to error, at least to noncomparable data. Because some small hospitals had the suggested 50 cases to assess while some large hospitals had only a few patients,

there were probably many instances of secondary pneumonia or viral pneumonia included in the surveys. At least, the medical and technical reasons for coding the diagnosis "bacterial pneumonia" seemed highly variable. If that surmise is correct, then of course many of the individual criteria will yield "variations" or even "deficiencies" that ought not to have appeared in our audit. The committee was aware of this problem and strove not to draw conclusions from "mushy" data.

b) A criterion must not be construed to be a rule about what process or outcome must be. A criterion, if carefully developed, is likely to represent how things ought to be and will be most of the time. But it is not an absolute; exceptions must be allowed and the peer group must be the agency to decide what constitutes an acceptable exception. The criterion statement is thus for screening only. Similarly, the column of the JCAH form that reads "Standard: 100% or 0%" must not be interpreted as an indication that the criterion is an absolute that must always or never be done. The "Standard: 100% or 0% is simply a shorthand way of instructing the medical records practitioner to "show the committee a chart if the criterion is not met, so that they may exercise their peer-review judgment about it." Failure of records personnel, administrators, or physicians to recognize the "criteria" and "standards" in this way can lead to much unnecessary stress and even anger, and failure to make the effort productive.

c) All must understand that calling a particular behavior or outcome a "deficiency" is not necessarily dreadful. We must inevitably find occasional deficiencies — otherwise we would be perfect. To locate a deficiency is not to say that "this hospital (or physician) is a lousy hospital (or physician)." Rather, it is an identification of a problem or potential problem that warrants special consideration and appropriate effort to modify it. Health care personnel *must not* view the identification of a problem as a finger-pointing, firebreathing accusation of negligence, incompetence or maliciousness.

d) The committee felt it found instances where all variations had been justified by the simple expedient of denying the validity of the criterion, rather than making judgments about each patient's care. In any one hospital, where the criteria would be developed by a local group and ratified by the local staff, this problem would not arise. But when the criteria arise elsewhere, as in this situation, the identification of deficiencies

based on what may seem inappropriate criteria should proceed; however, a comment can be offered such as this: "Although X% 'deficiencies' were identified, our hospital plans no action because we do not believe that the externally developed criterion is consonant with optimal medical practice in our hospital." Such an approach would still permit thoughtful study of patterns of care and stimulate some thinking and discussion that would be fruitful. In contrast to the "en masse justification by rejecting criteria," the committee found some hospitals "castigating" themselves unnecessarily by counting all variations as deficiencies, and failing to consider the individual circumstances (in other words, failing to give the variations the benefit of peer review).

e) Medical records personnel may be exceedingly helpful to an audit committee and should be asked to participate in the audit process. They can be particularly useful to a committee that is drafting the audit criteria and related statements. In this statewide audit all the criteria arrived ready-made, that vital role of the records personnel having already been performed by the CMEC and the IFMC staff.

f) A major reason for performing these audits is to generate issues of quality care to be discussed by the medical staff. Reflecting on criteria (even arguing about them), considering the tallies reported from the record room, assessing whether variations could be medically justified, planning and implementing corrective action — these activities needed to be performed by the medical staff if the exercise was to have maximum benefit. It seemed clear to the committee, from perusing reports and talking with colleagues, that staff involvement in these processes was rarely sufficient to produce its maximal potential effect.

SPECIFIC AUDIT FINDINGS

Here follows a brief discussion of some findings from the statewide audit. The sequence will be the same as the sequence of criteria in the original audit.

1. Justify the diagnosis of bacterial pneumonia with a positive chest roentgenogram. There seemed little disagreement with this criterion. Nevertheless, 5.6% of hospitals made a self-identification of some problem on this point.

2. The need to document a positive sputum culture exposed difficulties. Twenty per cent of hospitals felt themselves to have some degree of problem. Some of the deficiencies arose with patients for whom antibiotics had already been started before the patient entered the hospital. Such clinical behavior is certainly understandable, but indeed it has the effect of seeming to increase the rate of "deficiencies" in obtaining a positive sputum culture or Gram's stain. Rather, some of the "deficiencies" should probably have been termed "justified variations."

3. The criterion about ordering a blood culture probably drew the most heated response from those who wrote us. It would have been helpful if the committee had made known its rationale on this point: A patient with this diagnosis who is so ill or has other problems enough to warrant hospitalization (an indication at once that the problem is not the garden variety) is a patient more likely to suffer complicating features and one in whom an exact identification of the organism and its profile of antibiotic susceptibilities is increasingly vital. Also, a knowledge that septicemia exists may affect our notions of prognosis as well as guide which of the (likely) very expensive regimens would make the best sense.

A counter-argument can be given: that the yield of organisms is (likely) very low and therefore does not justify the cost of seeking in all instances. Obviously, there are cost/benefit uncertainties in this issue that warn against dogmatism. It may well be, however, that the arguments favoring the obtaining of a blood culture in this situation had not yet been heard or evaluated by many practitioners. If this audit has produced thoughtful consideration of the issue, it has been beneficial.

4. Antibiotics should be appropriate to culture and sensitivity and administered for at least seven days. This criterion generated many variations and deficiencies. It may be that many "deficiencies" could indeed have been justified by the patient's clinical improvement, or the lack of a recovered causative organism with which to test antibiotic sensitivities. There are many intima-

tions, however, that appropriate use of antibiotics is frequently a weak spot in physician behavior. Since this criterion unfortunately was a double one (not only the choice of antibiotic but its administration for at least seven days) we do not know how many of the deficiencies were attributable to which part of the criterion.

5. Patients with a secondary diagnosis of chronic obstructive pulmonary disease or "cyanotic" patients should have blood gas measurement. This criterion was met to the satisfaction of 95.4% of hospitals. The committee received claims that such a criterion constituted overutilization, and on the other hand, underutilization. Fortunately, the audit method allows for the local group to decide what constitutes justifiable variation.

6. IPPB is an ancillary service that should be used not routinely but in those instances when the patient is having difficulty eliminating secretions, and in such cases, used at least t.i.d. Eight per cent of hospitals identified a deficiency in the use of this modality; but once again we do not know if the problems lay in its over-utilization or underutilization. The self-identified deficiencies surprisingly were found more in the larger hospitals.

7. Bronchoscopy upon appropriate indication seemed to cause no deficiencies.

8. Deficiencies regarding justification of admission were identified in 5.8% of hospitals. Considering the variation allowed within the criterion as stated, plus the opportunity for peer-accepted justification, this 5.8% figure would yet allow for improvement and cost containment.

9. Improvement in chest X-ray or resolving clinical features at discharge was a criterion well achieved.

10. The importance of a follow-up X-ray exam several weeks later was something the CMEC wished to stress. The absence of a specifically stated plan in the hospital record had to be re-

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corded as a "deficiency" in this audit. The committee knew that documentation would be a problem on this round of the auditing. But it wanted to draw attention to the importance of accomplishing the follow-up exam, and also to provide an area in which hospitals could plan educational and follow-up activity.

11. Mortality ranged from 0% to 12%, but the deaths were felt to be justified under the circumstances in all but one instance. The 1976 statewide mortality (data from the Iowa Hospital Association's Health Services Data System) was 6.9%.

12. A length of stay from 6 to 12 days gave rise to a 37% variation rate. The identified deficiency rate, however, was only 4.6%; and again it is not clear what proportion was unjustified or unexplained early discharges and how many were late discharges. It seems likely that present activities of concurrent review will yield more effective monitoring for length-of-stay issues.

13. to 15. The complications of persistent fever (2%), atelectasis (2%), and pleural effusion (4%) seemed properly managed in almost all instances.

16. The final criterion simply sought an enumeration of other complications, not really as a measure of quality of care, but rather, as a unique opportunity to learn something of the natural history of the disease in a manner not previously obtainable. Since reports of experience from large academic centers have a bias toward seriousness and exceptionality, that bias in our knowledge of disease can be "corrected" only through largescale pooled data of this statewide kind. Although we suspect the total of 1,649 cases in the 77 hospitals probably included instances of viral and secondary pneumonia, other diverse complications were reported in 121 patients (7.3%). But the small number of patients in each category (except 16 in congestive heart failure) permitted no identification of a pattern. Furthermore, many of the items listed were obviously not complications due to the pneumonia but only associated conditions (for example, multiple sclerosis, hypothyroidism, diabetes mellitus, intra-uterine pregnancy, etc.).

OTHER CONCLUSIONS

1) Effective audits will have certain characteristics. Ideally, our statewide audit would show attainment of these characteristics in 100% of instances. Unfortunately, although not surprising for a first effort, we fell short of that goal. The characteristics and the proportion of audits reporting these important features are as follows:

- Analyze reasons for variations: 54/77 = 70%
- Make specific recammendations for improvement: 56/77 = 73%
- ullet Dacument the implementation of recommendations: 31/77 = 40%
 - State a plan far fallaw-up: 24/77 = 31%

It is apparent then that hospitals and records personnel are now engaging fairly well in the data-gathering aspects of the audit process, but far too few are profiting from that information by performing the subsequent steps involving analysis and action.

2) Fifty-eight of 77 hospitals identified at least one educational need after performing this audit. A total of 229 planned educational activities was listed by the participating hospitals. The educational needs and planned interventions were highly variable, and dealt with both knowledge and performance deficiencies. The educational activities were aimed at the following groups:

• Physicians	198
• Nurses	
Physical therapists	2
• Labaratary persannel	6
Respiratory therapists	3
Medical recards persannel	9
• Infectian cantral staff	1
:	229

These data argue that medical audit can indeed identify educational needs. To what extent these educational needs will be followed by effective educational strategies, and will indeed produce the desired changes of behavior, remains to be seen.

- 3) We recommend that a hospital representative contact Ms. Jennifer Cofer (1005 Grand Avenue, West Des Moines, IA 50265; 515/223-1338) for a description of how data from that hospital seemed to compare with other hospitals of similar size. The opportunity for real consciousness of one's personal or staff practice behavior and results can develop only when there is knowledge of methods and outcomes in other hospitals. Disclosure of such information will be made only as group data and unidentified reference to individual institutions; information will not be released about any other specific hospital. Hospital-specific information will not be provided to other agencies.
- 4) We respectfully suggest that each hospital staff spend time at its next staff meeting to discuss its own audit in light of the information provided above. We firmly believe the individuals who have thought about these issues have gained sig-

nificant educational benefit. It is almost impossible to discuss the validity of criteria, the justification of variations, the planning of strategies to correct identified deficiencies (call them problems, soft spots, or weaknesses, if you prefer) — impossible to do all this and not enhance one's knowledge of pneumonia and of the audit process. Some of the critics of the entire enterprise, who wrote distressed or angry reactions, have since admitted benefit in personal learning and advancement in some aspects of patient care.

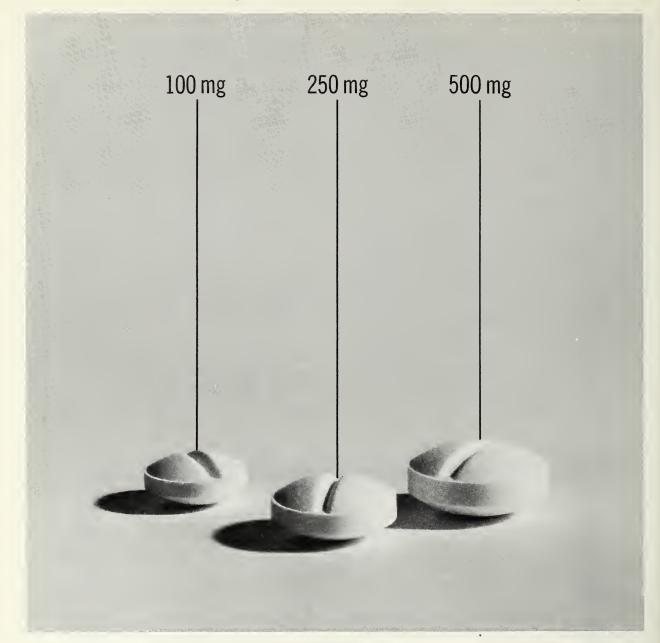
5) To achieve optimum follow-through (either educational or administrative intervention) and correction of identified weaknesses, we urge that hospitals be prepared to seek consultative help (educational or administrative). The educational help may come from the published medical literature, or from discussion with persons acknowledged by the local staff to be experts in medical science and education. Ask their assistance to help develop audit criteria. Call on them to interpret audit results and provide whatever instruction may be appropriate. (Our present experts will need to learn how to respond to requests of this type.)

We urge that if a hospital were to invite an

outside authority to help them with the clinical problem of pneumonia (or any other audit topic), then it should ask that resource person to review its audit, to critique the local approaches to diagnosis and care, and to focus the continuing education effort on individual patients actually treated in that institution. More benefit can be had from a resource person by drawing his or her attention to the facts of experience in that institution, than by inviting abstract generalities unrelated to the institution, its physicians or its patients.

Finally, the IFMC Continuing Medical Education Committee wants to thank the many well-motivated and talented individuals who accepted the challenge of working on this audit. The committee knows the philosophy and methods of medical audit are controversial in concept and immature in method. Each CMEC member learned from the project. We hope that is true for all others who participated. We believe the audit process will become simpler and more useful with practice. This entire effort has reminded us of the truth of Mark Twain's observation that there are certain things you can learn from swinging a cat by its tail that you can learn in no other way.





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M. E. ALBERTS, M.D., Scientific Editor

TEAMWORK

The healthy human body represents a fine example of teamwork. Each organ-system functions in coordination with the others, independent of each system but still in conjunction with the others to fulfill specified tasks. These vital organ systems of our bodies should set an example for each of us in our functions with other persons. Teamwork is the name of the game, and life is a serious game. More specifically, I refer to teamwork in our professional day-to-day activities. Certainly the teamwork demonstrated by the skilled surgeon and his assistants provides a successful result for the patient. The surgeons, anesthesiologist, nurses, technicians and all others involved in patient care work together for the health of the patient. Prior to the surgery, the teamwork provided by the laboratory personnel, radiologists and diagnosticians contributes to the ultimate success achieved by the surgeon.

In all aspects of our professional endeavor teamwork must proceed without taint, particularly one that arises in many human relationships. The workings of committees and special project commissions within the medical structure — hospital staff, county and state medical societies, or even in our personal relationships — must be without envy or jealousy. Though it is normal to be jealous to a degree at certain times, it is

IFMC—A CRUCIAL ENTITY

Since its inception by the IMS House of Delegates, the Iowa Foundation for Medical Care has remained committed to a philosophy that Iowa citizens should receive the highest quality medical care. This original premise is sometimes overshadowed by proposals of national health insur-

dangerous to let this complex emotion become all-consuming to a point of causing extreme pain and anguish. The jealous person becomes aggressive, feels threatened, and places his self-esteem in jeopardy.

We see these traits about us in our hospitals as well as in our relationships with each other. It seems normal that each group desires the best and the most. Yet, where can it all end? Who pays the ultimate high price? Why let envy ruin good relationships? Teamwork can fend off envy and greed.

Our patients deserve the best that medical skills can provide within a prudent organizational framework. If those of us in the time-honored medical profession can share this goal and maintain mutual respect everyone will profit. The betterment of patient care can be achieved when we use our abilities in a cooperative manner. We must work to improve what we do best, we must stay involved with our most rewarding skills, we must maintain our individual self-esteem and not succumb to jealousy. If we do our patients will receive quality medical care and we will gain more professional satisfaction. Approaching our tasks in a concerted atmosphere of teamwork will make the practice of medicine more joyful as well as rewarding. We physicians can thus be examples for the administrators and boards of directors of our hospitals. The health planning councils would be pleasantly surprised. It is worth the effort. — M.E.A.

ance and demands on Professional Standards Review Organizations for cost impact. Hopefully, reductions in cost will occur through PSRO. However, it is imperative we remember, first and foremost, that IFMC physicians are dedicated to the highest quality care.

About one year ago, the status of the PSRO program was reported in the IMS JOURNAL. At that

time, the Foundation had delegated 63 out of 136 hospitals in the state, and was on schedule with the PSRO program. At this time, the IFMC has achieved its goal of delegating PSRO review to Iowa hospitals. As the Foundation continues to serve the medical profession and the public, it is obvious we have much more work to do.

Through admission screening and concurrent review, we have continued to see reductions in admissions and lengths of stay. Although it is difficult to identify directly the impact of admission certification and length of stay, and their effects on medical practice and utilization, the IFMC is currently attempting to analyze available data. Quality assurance continues to be addressed through medical care evaluation studies. Information from these studies becomes more and more valuable in determining the needs for continuing medical education. Recently, the IFMC formed a Medical Care Evaluation Committee. Committee Chairman George West, M.D., Mason City, hopes the committee will stimulate more creative and innovative methods and more quality assurance activity around the state.

The IFMC has continued its efforts to provide utilization and quality review for private insur-

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ance companies. Twenty-five hospitals have voluntarily signed private review agreements. The IFMC, with backing of the IMS House of Delegates and the Iowa Hospital Association, has reiterated its support for voluntary review rather than legislated peer review of all hospital patients. Through the voluntary effort of physicians and hospitals, total patient review can become an effective reality.

Physicians and hospitals have become more comfortable and supportive of the Foundation as informational and educational programs are provided. Several IFMC programs and seminars have been given throughout the state again this year. The Continuing Medical Education Committee has administered the first statewide medical care evaluation study. Two hundred twentynine educational activities were planned as a result of this study. We believe that this speaks well of the effort put forth by many talented individuals.

Challenged to produce by the Carter administration, the IFMC is constantly making strides toward an attainable goal. The Carter administration has not been friendly to physicians, and does not favor our prominent role in PSRO. However, we still believe, as we have all along, that if cost savings are to be realized in medical care they will come about through proper application of peer review and physician concern for the welfare of the patient. Physicians must continue to take the responsibility for this rather than allow third-party payers or government bureaucracies to establish arbitrary cost controls. — J. H. BRINKMAN, M.D., *President*, *Iowa Foundation for Medical Care*

QUOTED

An IMS JOURNAL editorial (July, 1978) by Scientific Editor, M. E. Alberts, M.D., was excerpted and published in the August 17 WALL STREET JOURNAL. The quote:

An old adage, "Physician heal thyself," could well guide those who want to cure American medicine. When the government can demonstrate its methods are without fault, when governmental agencies can show they operate more efficiently for the public good, then perhaps something constructive can be offered and considered. Negative criticism, innuendo, tampered statistics, and outright untruths will not suffice.

State Department of Health

EMS DEVELOPMENTS

The 1978 Session of the Iowa General Assembly passed Senate File 2076: "An Act relating to the training and certification of and the services performed by advanced emergency medical technicians and paramedics, authorizing the State Department of Health and the State Board of Medical Examiners to make rules pursuant to this Act with the advice of an advanced emergency medical care council, and imposing penalties." This new law directed the Iowa State Board of Health to appoint the Advanced Emergency Medical Care Council. The Board made these appointments at its meeting of July 12, 1978. The 11 Council members appointed by the Board and the Commissioner's representative are as follows:

Ernest O. Theilen, M.D., lowa City
James German, D.O., Des Moines
Don E. Boyle, M.D., Sioux City
Robert G. Hathaway, M.D., Waterloo
Joseph H. Spearing, M.D., Harlan
Jerry Long, EMT-A, Webster City
Jane Hasek, R.N., Reinbeck
Carol Wagner, R.N., EMT-A, Cedar Rapids
Wayne McCunn, EMT-A, Council Bluffs
Dennis White, EMT-A, Buffalo
Michael Stevens, EMT-A, Ames
Ronald D. Eckoff, M.D., M.P.H., Des Moines

In the coming months this Council will be assisting the Department of Health and the Board of Medical Examiners in developing the rules to

OCTOBER CME SESSION

An Internal Medicine Symposium is planned Friday and Saturday, October 13 and 14 at the Iowa Methodist Medical Center in Des Moines. Gastrointestinal, pulmonary and cardiologic topics will be covered in the day-and-a-half symimplement this law and in program implementation. Any questions or comments about the law or its implementation can be directed to the Department, the Board of Medical Examiners, or to a member of the Council on Advanced Emergency Medical Care.

EMS MEDICAL ADVISOR

James German, D.O., director of the Emergency Department at Mercy Hospital in Des Moines has been designated the part-time medical advisor to the Emergency Medical Services Section of the Iowa State Department of Health. In this capacity, he will serve under contract to provide medical guidance to the state's Emergency Medical Services Program. Dr. German will make recommendations to the Department regarding medical content of all EMS programming.

E.I.S. VETERINARY OFFICER

The Center for Disease Control has assigned Fred T. Schlecht, D.V.M., to the Iowa State Department of Health to assist in epidemiologic investigations. This is a two-year assignment with the goal of providing additional investigative service to the state's medical community and opportunities for training in communicable disease epidemiology. Dr. Schlecht is a 1974 graduate of Ohio State and obtained the masters in public health degree from the University of Minnesota in 1977.

posium. The program will be of special interest to internists and family practitioners.

Category I credit will be available toward the Physician's Recognition Award. For additional information, please contact E. J. Hertko, M.D., director of medical education, Iowa Methodist Medical Center, Des Moines. (Telephone: 515/283-6266)

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July 1978 Morbidity Report

	June 1978	1978 ta	1977 to	Mast July Cases Reparted Fram
Disease	Tatal	Date	Date	These Caunties
Amebiasis	14	118	71	Polk, Dallas
Chickenpax	48	5609	7364	Scattered
Canjunctivitis	79	878	1747	Black Hawk, Star Jahnson
Erythema infectiasum	0	50	49	_
GI viral infection	183	13062	16259	Scottered
Hepatitis				
infectiaus	6	89	66	Scott, Osceola, Black Hawk, Des Moines
serum	2	50	76	Block Hawk, Pall
type unspecified	1	38	20	Dubuque
Impetiga	62	529	426	Johnson, Story
Infectious mono.	38	679	708	Jahnsan, Black
				Howk
Influenza-like illness Meningacaccal	199	39057	40436	Scattered
meningitis	0	2	1	
Meningitis, aseptic	3	5	1	Butler, Linn
Meningitis, type unsp.	2	12	8	Linn, Jackson
Mumps	1	121	1258	Palo Alto, Palk, Mantgamery
Pediculasis	13	339	234	Scattered
Pertussis	3	6	0	Scatt, Winneshie
Pinwarms	1	15	22	Palk
Pneumania	169	1798	615	Scattered
Rabies in animals	7	78	70	Clintan, Emmett, Jasper, Warth Sac
Rheumatic fever	3	27	26	Jahnsan, Lee, Black Hawk, Li Delaware
Ringworm	10		104	
bady	18	200	186	Buena Vista, Dallas, Janes, Palk
scalp	2	18	5	Black Hawk
Rubella	4	51	175	Des Maines, Dickinsan, Jahnsan,
B.1		50	4000	Wapella
Rubeala	2	52	4328	Palk, Flayd
Scabies Tuberculasis	30	717	583	Scattered
total ill	12	97	93	Baane, Guthrie, Carrall, Washingtan
bact. pas.	9	45	50	Janes, Stary
Ganarrhea	597	2995	3368	Scattered
Syphilis	10	133	192	Johnsan, Palk, Waadbury
P. & S. Syphilis	3	25	23	Johnsan
	3	23	20	- 0.113411

Labaratary Virus Diagnasis Withaut Specified Clinical Syndrame: Eatan's Agent Infectian — 7, Giardiasis — 2, Herpes simplex — 3, Adenavirus — 4, Vincent's agina — 1, Scarlet fever — 1.

About IOWA Physicians

NEW DOCTORS IN IOWA

Dr. Robert Savereide has joined Dr. Neil Williams in general surgery practice at Sartori Hospital in Cedar Falls. A Waterloo native, Dr. Savereide received the M.D. degree at Loyola University in Chicago; interned at Butterworth Hospital in Grand Rapids, Michigan; served a three-year tour as general medical officer with the U. S. Navy and returned to Loyola University to complete his residency in surgery. While at Loyola University, Dr. Savereide was presented the Lovola Medical Center's Kaiser award which is given the outstanding senior surgical resident. . . . Dr. Peter R. Marcellus joined the staff of the Creston Medical Clinic July 10. Dr. Marcellus received the M.D. degree at U. of I. College of Medicine and recently completed his family practice residency at Broadlawns Hospital in Des Moines. . . . Dr. David Kemp recently became associated with Dr. Donald McCabe in Burlington. Dr. Kemp received the M.D. degree at U. of I. College of Medicine and practiced general medicine near Sacramento, California, before returning to U. of I. where he recently completed his pediatric residency.

Drs. Sterling Laaveg, Sandy Gonzalez, Michael T. Nelson and Sant Hayreh recently began medical practice in Mason City area. Dr. Laaveg, a native of Belmond, received the M.D. degree at U. of I. College of Medicine, and served his residency in orthopedic surgery at University Hospitals. He has joined Surgical Associates in Mason City. Dr. Gonzalez, a native of Puerto Rico, received his medical education in Spain. He interned in Puerto Rico and formerly practiced in Algona. Dr. Gonzalez is located in Nora Springs. Dr. Nelson, a Mason City native, received the M.D. degree at U. of I. College of Medicine and served his residency in radiology at University of

Minnesota School of Medicine. Dr. Nelson is associated with Department of Radiology at Mercy Hospital. Dr. Hayreh received his medical training in India and London, England, and completed his residency in neurology at University Hospitals in Iowa City. Dr. Hayreh's office is located in Mercy Hospital.

Dr. James E. Crouse has joined the Waterloo Surgical and Medical Group. Dr. Crouse received the M.D. degree at U. of I. College of Medicine in 1974. During 1973, he spent three months studying in Edinburgh, Scotland, at Princess Margaret Rose Orthopaedic Hospital on a scholarship from the International College of Surgeons. Dr. Crouse completed his orthopaedic residency at the Mayo Clinic in Rochester, Minnesota. . . . Two physicians recently located in Boone — Dr. James Hardinger opened a family practice and Dr. Dorryl L. Buck became director of the Boone County Hospital Laboratory Department. Dr. Hardinger is a graduate of the College of Osteopathic Medicine and Surgery in Des Moines and recently completed his family practice residency at Iowa Lutheran Hospital. Dr. Buck received the M.D. degree at U. of I. College of Medicine and completed his pathology residency at the University of North Carolina. . . . Dr. Brian Ford has joined the Spirit Lake Medical Center. Dr. Ford received the M.D. degree at U. of I. College of Medicine; interned at Children's Mercy Hospital in Kansas City and completed his family practice residency at Goppert Family Care Center, Baptist Memorial Hospital, Kansas City. . . Dr. Lafayette J. Twyner, Jr. has opened an office for family practice in Davenport. A Davenport native, Dr. Twyner received the M.D. degree at U. of I. College of Medicine and recently completed his family practice residency at St. Luke's and Mercy Hospitals in Davenport.



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Dr. Glen Gabriclson recently began a solo family practice in Mt. Pleasant. Dr. Gabrielson received the M.D. degree at U. of I. College of Medicine and completed his family practice residency at University Hospitals in Iowa City. . . . Dr. Douglas B. Dorner, Des Moines, has been elected to membership in the North American Chapter of the International Cardiovascular Society. The honor was accorded to Dr. Dorner for his work in cardiovascular surgery.

Dr. Andrew Barclay has joined Dr. Jon Yankey in family practice in Mason City. Dr. Barclay received his medical education at the University of Dundee in Scotland; interned at Ninevells Teaching Hospital in Scotland; and served his family practice residency at University Hospitals in Iowa City and St. Joseph Mercy Hospital in Mason City. . . . Dr. Robert S. Hranac joined the Estherville Medical Center in July. Dr. Hranac received the M.D. degree at University of Nebraska School of Medicine and had his family practice residency in Cedar Rapids. . . . Dr. Timothy K. Daniels joined the staff at Family Health Center in Storm Lake in July. Dr. Daniels received the M.D. degree at U. of I. College of

Medicine; interned at Ramsey Hospital in St. Paul, Minnesota, and had two years in family practice residency at Broadlawns Hospital in Des Moines. . . . Dr. Roy W. Overton, West Des Moines, presented a paper entitled, "Facts of Organic Chemicals on Human Health in Drinking Water" at July National Convention of Izaak Walton League in French Lick, Indiana.

Dr. Stephen VanHouten, Ames, was guest speaker at July meeting of the Wright County Medical Society. Dr. Van Houten gave a demonstration of echograms of ultrasonic fetuscopic analysis. . . . Dr. Jeffrey E. Lavigne, Ottumwa, has been named a diplomate in surgery. Dr. Lavigne is associated with Ottumwa Surgical Associates, P.C., where he specializes in peripheral vascular and general surgery. . . . Dr. and Mrs. E. G. Kettelkamp, Monona, were honored at an open house commemorating Dr. Kettelkamp's 50 vears in medical practice. . . . Dr. Lucas Van **Orden** has joined the staff at the Mental Health Institute in Mt. Pleasant. Dr. Van Orden is a former professor in the Departments of Pharmacology and Psychiatry at U. of I. College of Medicine. He recently returned from temporary active duty in medical corps of U. S. Naval Reserve, and is presently a medical consultant for the Lakeside Alcoholism Treatment Center in Cedar Rapids. He is temporarily on leave from the U. of I. . . . Dr. Roger W. Boulden, Lenox, recently attended the 30th Annual Scientific Assembly of the Missouri Academy of Family Physicians at Lake Ozark, Missouri.

DEATHS

Dr. John R. Rankin, 71, died at his home in Keokuk on July 6. Dr. Rankin received the M.D. degree at U. of I. College of Medicine; interned at San Diego County Hospital and took postgraduate work in surgery at Cedars of Lebanon and Los Angeles County Hospital in California. A past chief of staff at both St. Joseph and Graham Hospitals, Dr. Rankin had practiced medicine and surgery in Keokuk for over 40 years. During World War II he served with the U. S. Navy in the South Pacific. He was a member of the American College of Surgeons and Iowa Clinical Surgical Society.

Medical Assistants



by BETTY EHLERT, CMA-A

"HISTORIC PAST — DYNAMIC FUTURE"

What place could be more appropriate as a setting for a meeting with this theme than historic Boston, where education for women was pioneered over 100 years ago and continues to flourish today.

From October 23-28, AAMA will be in convention at the Sheraton-Boston Hotel, though many registrants will arrive a day or two earlier to participate in pre-convention workshops before the formal sessions begin.

On October 22, the New England State Societies (Massachusetts, Connecticut, Maine, New Hampshire, Rhode Island and Vermont) will welcome all registrants at a "New England Garden Party."

GENERAL SESSIONS

Several new features will be part of this year's convention, beginning with an important General Session on the "Dynamic Future of AAMA," highlighting the continuing education, public relations and membership concerns of AAMA. This program will be followed by an opening luncheon, where local and state dignitaries will welcome members to Boston and New England. Four Boston physicians will present a panel entitled "Historic Past: Symposium on Early New England Medicine."

EDUCATION WORKSHOPS

In addition to the official sessions of the House of Delegates, national boards and committees, a variety of workshops will be offered. Some workshops will emphasize "front office" procedures, including a presentation on "Office Administration" by W. Godfrey Gourley, CPBS, profes-

sional management consultant, Manchester, Connecticut; plus "Dynamics of Interpersonal Relationships in the Medical Office" and "Office Emergencies and How to Cope With Them." Several workshops will deal with the important subject of nutrition. William Steffee, M.D., Ph.D., Clinical Director of the Nutritional Unit, Boston University Hospital, will conduct workshops on "Obesity Therapy; Facts and Fantasy" and "Nutrition and Cancer: Is Death by Starvation Necessary?" Others will deal with clinical topics including "Microbiology," "Radioisotopes and Thyroid Function," and "Management of the Burn Patient."

Faculty from many educational institutions will conduct workshops of particular interest to medical assisting educators and a dinner will be held during the convention honoring the newly certified medical assistants.

SEPTEMBER SEMINAR

A Medical Collections Seminar sponsored by Siouxland Chapter, AAMA, and endorsed by the Woodbury Medical Society, will be held September 16, 8:30 a.m. to 4:30 p.m. at the Normandy in Sioux City. The Seminar will be presented by Ms. Lynn Olson, Division of Medical Practice of the American Medical Association, and Larry Forbes, Vice President of the Credit Bureau of Sioux City.

For further information contact Shirley Anderson, President, Siouxland Chapter (712) 255-9756.

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President's Page

This month I'd like to call your attention to the amount of work done by our Iowa Medical Society Auxiliary. This is an active organization with 1,244 current members. They deserve our encouragement and support as they seek to grow and serve.

What kinds of things is the Auxiliary doing? In September it collaborated with the Dental Auxiliary to present a Public Affairs Workshop. On October 30 a seminar on "Alcoholism and Chemical Dependency, the Family Illness" is planned. Throughout Iowa, Auxiliary members are active in CPR training programs. One county has 53 trained members, another county has 24. The Auxiliary is helping with health education in the public schools—giving attention to nutrition, physical fitness, immunization, venereal disease, etc.



And Auxiliary legislative and political involvement continues on the upswing. The interest and participation of physicians' spouses in this area can be beneficial to the profession and the public.

What else? Visual screening programs for youngsters, transcribing textbooks into Braille, conducting physical fitness programs in nursing and retirement homes, selling items made by the homebound handicapped. And so on.

The subject of total care for those mentally ill persons transferred from state hospitals to county homes or nursing homes is discussed often. It was reviewed recently with State Department of Health officials. While any new thrust in this area will need to be considered by the concerned IMS committees and other involved agencies, I hope there may be a voluntary, supportive role for the Auxiliary to assume in serving these people.

You can see I believe in the potential of the Auxiliary. I hope you will join me in supporting the Auxiliary's officers and members.

Russ Gerard MD

Russell S. Gerard, II, M.D., President

IOWA Medical Miscellany

MEDICAL COST ACTION . . . Responding to mounting concern over health care cost escalation, the IMS Executive Council approved a resolution August 30 containing the two following resolves: Be it Resolved that the Iowa Medical Society endorse the call by AMA President Tom E. Nesbitt, M.D., for physicians to help moderate increases in medical care costs by using appropriate restraints to keep fee increases more nearly in line with the annual increase in cost of living; and Be it further Resolved that the Iowa Medical Society endorse the Voluntary Effort as a responsible private-sector activity to restrain increases in hospital costs without arbitrary limits or government intervention.

CHIROPRACTORS WITHDRAW Proposed rules to enable chiropractors to expand their scope of practice were withdrawn unexpectedly by the Board of Chiropractic Examiners just prior to a scheduled review on September 12 by the Legislative Rules Committee. The IMS had objected strenuously to the proposed rules earlier in the year at a hearing of the Board of Chiropractic Examiners.

CHEMICAL DEPENDENCY SEMINAR... A Physicians' Seminar on Chemical Dependency will occur October 29 at the Hilton Inn in Des Moines. The full program was sent to member physicians with the September IMS UPDATE. The IMS is one of several sponsors of the seminar which includes several nationally known speakers on its program. Further details on the seminar may be obtained from Society Headquarters.

NEW MEMBER SEMINAR . . . Those physicians who have become members of the Iowa Medical Society for the first time within the past 12 months have been invited to a special seminar the afternoon and evening of October 17 at the IMS Headquarters.

FALL LEADERSHIP CONFERENCE... Past AMA President Max Parrott, M.D., of Portland, Oregon, who headed the National Commission on the Cost of Medical Care, will be a headline speaker at the October 18 Fall Leadership Conference at IMS Headquarters. Another national figure to speak at the FLC will be Walter McNerney, president of National Blue Cross/Blue Shield. Both will concentrate on health care costs. Full program details have been circulated and are available on request.

DR. HAVLIK RESIGNS... For health reasons, A. J. Havlik, M.D., Tama, submitted his resignation in September as a trustee of the Iowa Medical Society. Dr. Havlik was in his second three-year term as a trustee, his term to expire in 1979. The Board of Trustees will appoint a member physician to fill the vacancy created until an election is held by the 1979 House of Delegates.

NEWBORN SCREENING . . . Acting on recommendation of the IMS Committee on Independent Laboratories, the Executive Council approved August 30 a statement dealing with newborn screening and the functions of a Birth Defects Institute which was created by statute in 1976. The statement called for support of the BDI but condemned the establishment of a "centralized laboratory" as part of the newborn screening effort. Further attention will be given to the subject in November when the Iowa Association of Pathologists provides a report to the State Board of Health.

MEMBERSHIP DIRECTORY . . . It is anticipated the 1978-79 IMS Membership Directory will be available for distribution to all members by mid-October. Contents of the new directory have been expanded to include additional reference information.

(Please turn to page 346)

The Question Box



by RICHARD L. SUTHERLAND

MARCH OF DIMES ACTIVITY

Mr. Sutherland is Executive Director for The National Foundation — March of Dimes, Central Iowa Chapter. He comments on his organization's work and on the status of voluntary health agencies generally.

In this issue we have a special article on the handling of high risk newborn. How is your organization involved in this area?

March of Dimes-supported programs at medical centers, hospitals, health departments and clinics enable health professionals to provide the best possible care to mothers and infants. In fact, as of July 1, 1977 contributions from the American people supported 207 programs of perinatal and genetic services. Many March of Dimes chapters assist emergency transport programs. Sometimes local hospitals only need advice from a larger center where an intensive care nursery is located. National Foundation funds have established "perinatal hot lines" which provide 24-hour telephone consultation from teams of specialists. These programs provide concrete evidence of our concern for the health of newborn infants.

What specific physical conditions or problems does the National Foundation address?

The National Foundation is concerned with birth defects which strike more than 250,000 babies each year. The problems include mental retardation, blindness, deafness, missing limbs, defective blood cells and body chemistry disorders. We define a birth defect as "an abnormality of perinatal origin in the body's structure, function or metabolism." While the causes of many birth defects are unknown, we are able to identify many as being inherited and others as being caused by environmental influences. A majority of birth defects probably result from a combination. The search for the means to prevent birth defects is increasingly complex and far-ranging. The emphasis is on early, continuous care for not only the pregnant woman with medical or social risks, but for all women, to assure, insofar as possible, uncomplicated pregnancies and safe deliveries.

In what ways is The National Foundation active in Iowa?

The National Foundation and its Iowa chapters have become increasingly involved in the support of research grants, medical service grants and community health services to prevent birth defects. Medical service programs supported by Iowa chapters include the Statewide Perinatal Program and the Genetic Counseling Program based at the University of Iowa. Many chapters are providing necessary equipment in hospital intensive care nurseries. Educational opportunities are available to both health professionals and lay people through chapter sponsorship of symposia and conferences. Informational materials and films on prenatal care, nutrition, venereal disease, alcohol, tobacco, drugs and specific birth defects are available free from March of Dimes chapters. In-service training modules for nurses have been prepared on "Neonatal Thermoregulation" and "Hypoglycemia in the Newborn" and others are expected shortly.

(Please turn to page 357)

MEDICAL MISCELLANY

(Continued from page 342)

CAR LEASING PLAN . . . Approval has been given by the IMS Executive Council to the implementation of a car leasing program for interested Society members. The program will be provided through Ruan Car Leasing and comes on the recommendation of the Committee on Group Insurance. The program contemplates grouping vehicles into six categories with categorical multipliers established to factor against the window price of a desired vehicle to determine the monthly lease cost. Most car models will be available through the program which presents various potential economic advantages. A mailing on the program is planned in the near future.

MEET WITH BME . . . The IMS Board of Trustees conferred September 21 with representatives of the State Board of Medical Examiners on CME requirements, new disciplinary rules, physician extenders, etc. New rules pertaining to CME and physician discipline developed by BME over the past several months are scheduled to enter the review process in October.

EXPAND LIFE INSURANCE . . . A new supplemental group life insurance plan will become available to interested IMS members within the next several months. Responding to inquiries about increased limits, the Society's insurance administrators, The Prouty Company, have negotiated with American Mutual Life a low-cost term plan which will offer an additional \$100,000 protection. The new coverage will be in addition to the program now available through Bankers Life which has a \$50,000 limit. Various attractive features are incorporated in the new AML plan. It is anticipated specific information will be distributed and enrollment activity will begin soon after the first of the year.

BUILDING REFURBISHING... The 13-year IMS Headquarters will undergo some refurbishing in the next several months. The Board of Trustees has authorized certain re-decoration of the building's well-used large conference room, the Dr. Walter Bierring Memorial Conference Room and several offices.

Librax[®]

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis. Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur. **Precautions:** In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation,

confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets

HEALTH CARE INFO ABOUNDS IN AMA VOLUMES

AGREAT AMOUNT of information on health care is amassed each year by all manner of fact-finders, agencies, commentators, etc. What emerges in print ranges all the way from interesting, important and useful to mind-boggling and confusing.

One of the more worthwhile annual efforts at health data compilation is a two-volume work of the American Medical Association Center for Health Services Research and Development. The second half of this two-part work is just off the press for 1978. It is called *Profile of Medical Practice*. Its companion has been out awhile and is known as *Socioeconomic Issues of Health*.

The seventh annual edition of PMP has 283 pages of up-dated information on the economics of medical practice in the United States today. Much of its content is based on the AMA's Eleventh Periodic Survey of Physicians, in which a cross-section of doctors is asked many questions regarding office finances, working hours and other aspects of medical management.

The many new findings of this AMA reference book include these revelations:

- More than one-third of the physician respondents said they are practicing defensive medicine

 ordering more tests and procedures to protect themselves against possible legal action.
- Since 1975 the rate of increase of physicians' fees, as measured by the consumer price index, has been declining, to 9.2% in 1977.
- For the typical physician, practice expenses increased at a compound rate of growth of 10.4%, 1969-1976, while net income from medical practice increased at a rate of 6.0% over the same period.
- On December 31, 1976, the mean age of male physicians with known addresses was 46.3 years while the mean age of women physicians was 42.4 years. Almost 40% of women physicians were less than 35 years of age.
- The average doctor in office practice worked 47.2 weeks in 1975. The typical physician prac-

ticed medicine 52.2 hours per week in 1976, as compared with 51.8 in 1975 and 49.9 in 1974.

• The average physician in 1976 was seeing more patients — 128.5 per week — as compared with 126.5 in 1975 and 125.8 in 1974.

The sister volume — Socioeconomic Issues of Health — is replete with information on population characteristics, morbidity and mortality data, national health care expenditures, medical education and medical manpower statistics, etc. Mentioned, for example, in its 243 pages are the following facts:

- U. S. health care expenditures were estimated at 139.3 billion, or \$638 per capita, in fiscal year 1976. This amount represented 8.6% of the gross national product, compared to 5.8% 10 years earlier.
- The average length of life for the U. S. population has increased 6.3% since 1950, from 68.2 years in 1950 to 72.5 years in 1975. In 1975, females had a life expectancy 7.8 years greater than males.
- Heart disease was still the leading cause of death in 1976, accounting for 338.6 deaths per 100,000 population or 38.0% of all deaths.
- The 1976 estimated infant mortality rate for the U. S. was 15.1 per 1,000 live births. This represents a 48.3% decrease from 1950 when the rate was 29.2 per 1,000 live births. It also represents a 6.2 decrease from 1975 when the rate was 16.1 per 1,000 live births.
- At the end of 1976 there were 409,446 physicians in the U. S. and its possessions. 79.5% of all physicians were in patient-care activities, and of these, 68.0% were office based.
- In 1976, there were 189 physicians per 100,000 population compared to 142 in 1960.
- The average number of physician visits per person per year was 4.9 in 1976 and 5.1 in 1975.

These random excerpts are noted only for casual interest to indicate the breadth of information contained in these two AMA volumes. Copies are available to persons who may desire them.

IN THE PUBLIC INTEREST



Transport of the High Risk Neonate: Who, When, and How

HERMAN A. HEIN, M.D., ALLEN P. ERENBERG, M.D., NANCY LANE, R.N., and JANE LUNDVALL, R.N. lowa City

SINCE 1973, Iowa perinatal mortality rates have declined more rapidly than corresponding national rates. The lower mortality rates are a reflection of improved perinatal care practices throughout the state and largely attest to the diligence of Iowa physicians in screening patients at risk and referring them when appropriate care cannot be provided locally.

Even with the best screening techniques, the advent of a distressed neonate cannot always be anticipated and, of necessity, sick babies must be transported to intensive care units. The safety and convenience of intrauterine transport cannot be duplicated by even the most modern transport devices. However, when transport is required, the best outcome can be obtained if the baby's distress is recognized early, resuscitation and

The authors are associated with the Department of Pediatrics at the University of Iowa Hospitals and Clinics. Dr. Hein is an associate professor and director, Iowa Statewide Perinatal Care Program. Dr. Erenberg is an associate professor and chairman, Division of Neonatal Medicine. Ms. Lane and Ms. Lundvall are clinical nursing specialists, neonatal.

What conditions may require transportation to a neonatal intensive care unit? Here is a comprehensive review. Suggestions are offered for resuscitation and stabilization as well as the proper mode of transportation.

stabilization procedures are properly carried out in the local hospital and transport is conducted by trained personnel.

The purpose of this report is to review:

- 1) common problems of the neonate that may necessitate referral to a neonatal intensive care unit;
- 2) resuscitation and stabilization of the neonate prior to transport;
- 3) the status of the neonatal transport system in Lowa:
- 4) the most appropriate mode of transport for the various clinical conditions discussed.

CONDITIONS THAT MAY NECESSITATE REFERRAL TO A NEONATAL INTENSIVE CARE CENTER

Although the decision to transport a newborn to another hospital may be difficult in many cases, there are, however, certain conditions which clearly necessitate immediate transfer of the infant, regardless of the specific diagnosis. They are:

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF OCTOBER 1978.

- 1) Respiratory distress that lasts longer than 2 hours or shows signs of increasing severity.
- 2) Cyanosis and/or respiratory distress that requires supplemental oxygen concentrations greater than 35% for longer than 2 hours.
- 3) A birthweight of less than 1500 gm (3 pounds, 5 ounces).
 - 4) A gestational age of less than 32 weeks.
 - 5) A 5-minute Appar score of less than 6.
- 6) A condition that requires immediate surgical intervention (Table I).

The signs and symptoms of neonatal illness are frequently subtle and nonspecific. In Table II, we have listed some common signals of neonatal distress and attempt to illustrate that many neonatal disease states may present with similar findings. Table III outlines 10 common causes of neonatal distress and lists signs and symptoms frequently associated with each condition. Familiarity with Tables II and III should help physicians and nurses to readily recognize the early signs of neonatal distress.

RESUSCITATION AND STABILIZATION OF THE NEWBORN

Introduction

After the transport decision has been made, many physicians and nurses feel compelled to move the infant as soon as possible. The ultimate outcome for the baby will be influenced more by the quality of care given than the time required to accomplish the transport. Thus, the infant will be best served if physicians and nurses become adept at resuscitating and stabilizing the neonate in the local hospital rather than rushing out on a precarious transport. The following materials are presented as a basic guide to resuscitation and stabilization of the sick newborn in a community hospital.

The Need for Immediate Action

Interruption of an infant's oxygen supply will result in a rapid drop in oxygen level. Death is not immediate, since cardiac activity will be sup-

TABLE I

SURGICAL CONDITIONS IN THE NEONATE THAT MAY NECESSITATE TRANSFER TO A CENTER

- 1. Meningomyelocele
- 2. Gostroschisis/amphalacele
- 3. Extrophy af the bladder
- 4. Diophrogmatic hernia
- 5. Esophageal atresio
- 6. Intestinal obstruction

THE PRESENTATION OF THIS REPORT ON THE HANDLING OF THE HIGH RISK NEONATE IS A COOPERATIVE EDUCATION PROJECT OF THE MARCH OF DIMES – THE NATIONAL FOUNDATION AND THE JOURNAL OF THE IOWA MEDICAL SOCIETY. THE STATE OFFICE OF THE MARCH OF DIMES IS LOCATED AT 304½ 8TH STREET, SUITE 200, DES MOINES, IOWA 50309.

ported by anerobic metabolism. The infant's initial response to asphyxia is to gasp for 1 to 2 minutes, but then breathing ceases. This is termed primary apnea and lasts 30-60 seconds. With appropriate ventilation, the infant can be rapidly resuscitated prior to and during primary apnea. If appropriate intervention does not occur, gasping will resume for an additional 4 to 7 minutes, but the next episode of apnea, termed secondary or terminal, will be followed by death unless resuscitation is given.

Central nervous system damage begins in approximately 8 minutes after the onset of anoxia and becomes complete at 12 to 13 minutes. Central nervous system damage can be averted even if the infant is in the secondary phase of apnea. However, for every minute of delay in resuscitation after the start of terminal apnea, there is a 2-minute delay in the onset of gasping and a 4-minute delay in the subsequent onset of rhythmic respiration. Thus, it becomes apparent that resuscitative action must be swift. Accordingly, appropriate equipment and supplies and an individual skilled in resuscitation must be immediately available.

ANTICIPATION OF THE DISTRESSED NEONATE

A neonatal resuscitation station should be established in each delivery room and surgical suite. Oxygen, a suction source and an infant overhead warmer should be available in this area. If an overhead warmer is not available, a skillful nurse using warmed blankets and towels can ensure adequate warmth for the baby.

Equipment and supplies used in resuscitation are listed in Table IV. These materials should be checked daily and if any items are used during resuscitation, they should be replaced immediately. When a distressed neonate is anticipated (see Table V), the physician managing the gravida should ensure the presence of another person responsible for infant resuscitation.

Since a relatively small number of infants are

TABLE II

SIGNS AND SYMPTOMS AND ASSOCIATED CLINICAL CONDITIONS IN THE SICK NEWBORN

TABLE III

CLINICAL CONDITIONS AND ASSOCIATED SIGNS AND SYMPTOMS IN THE SICK NEWBORN

Sign or Symptom	<u>.</u>	Clinicol Condition		Clinical Condition		Signs ond Symptoms
Respirotory Distress (Grunting, retroctions, tochypneo, cyonosis)	1.	Idiopothic Respirotory Distress Syndrome (Hyoline Membrone Diseose) Congestive Heort Foilure Infection Hypoglycemio Pneumothorox	1.	Infection	1.	Chonge in Sensorium Feeding Intoleronce Temperature Instability Joundice Respiratory Distress Apneo/Brodycordio Bleeding
		Hyperviscosity Syndrome Diophrogmotic Hernio Congenitol Heort Diseose	2.	Idiopothic Respirotory Distress Syndrome (Hyoline Membrone Diseose)	2.	Grunting Cyonosis in room oir Retroctions
 Chonge in Sensorium (Lethorgy, irritobility, jittery, convulsion) 	2.	Infection Hypoglycemio Hypocolcemio CNS Troumo				Tochypnea (respiratory rate > 60/minute) Apneo/Brodycordio
3. Temperature Instability	3.	Perinotol Asphyxio Infection	3.	Diophrogmotic Hernio	3.	Respirotory Distress Scophoid Abdomen Asymmetry of the Chest
(Fever or hypothermio) 4. Feeding intoleronce	4.	Premoturity Infection Hypoglycemio Intestinol Obstruction Esophogeol Atresio Congestive Heart Failure		Perinotol Asphyxio		Chonge in Sensorium Hypoglycemio Hypocolcemio Apneo/Brodycordio
5. Joundice	5.	Hemolytic Diseose of the Newborn Low Birth Weight Infont Infection Hyperviscosity Syndrome Infont of Diobetic Mother	5.	Hyperviscosity Syndrome (Hemotocrit > 65%)	5.	Respirotory Distress Hypoglycemio Chonges in Sensorium Joundice Pulmonory Hemorrhoge Arteriol/Venous Thrombosis Apneo/Brodycordio
5. Bleeding	6.	Infection Bleeding Disorders	6.	Infant of Diobetic Mother	6.	Lorge for Gestotional Age (LG: Hypoglycemia
7. Apneo/Brodycordio	7.	Infection Hypoglycemio Anemio Congenitol Molformotion of CNS Congestive Heart Foilure Seizure Disorder	7.	Hypoglyce <i>m</i> io	7.	Hypocolcemio Chonge in Sensorium Joundice Respirotory Distress Congenitol Anomolies Respirotory Distress
3. Hypoglycemio	8.	Hyperviscosity Syndrome Small for Gestational Age (SGA) Infant Infant of Diabetic Mother		7,703-7		Chonge in Sensorium Apneo/Brodycordio Feeding Intoleronce
		Infection Congestive Heort Foilure Perinotol Asphyxio	8.	Congestive Heort Foilure	8.	Respiratory Distress Edemo Feeding Intoleronce
9. Hypocolcemio	9.	Perinotol Asphyxio Infont of Diobetic Mother				Hypoglycemio Apneo/Brodycordio Hepotomegoly
 Smoll for Gestational Age (SGA) (Birth weight < 10% ile for Gestational Age) 		Hypoglycemio In-utero Virol Infections	9.	Hemolytic Diseose of the Newborn	9.	Joundice Hypoglycemio
Abdominol Distention and/or Vamiting	11.	Intestinol Obstruction Sepsis	10.	Congenitol Heort Diseose	10.	Cyonosis Respiratory Distress
12. Excessive mucus	12.	Esophogeol Atresio				Apnea/Brodycordio

TABLE IV

MINIMUM EQUIPMENT AND SUPPLIES

- 1. Warm place ta wark, A warmer bed is ideal.
- 2. Flat surface-
- 3. Suctian (wall ar machine) with infant suctian catheters
- 4. Infant size resuscitation bags and masks (250 and/ar 500 cc bags).
- 5. Warm, maist axygen saurce
- 6. Laryngascape with infant blades
- 7. Endatracheal tubes (2.5, 3.0, and 3.5 mm internal diameter)
- 8. #3.5 and #5 umbilical catheters
- 9. Syringes
- 10. Sadium bicarbanate (preferably cantaining 1/2 mea/cc)
- 12. D₅W, D₁₀W
- 13. Pediatric intravenaus administration sets
- 14. 5% Human pratein salutians, example: plasmanate
- 15. Bulb syringe
- 16. Stethescape

delivered in most community hospitals, we suggest that physicians and nurses working in these hospitals maintain their skills in resuscitation by having monthly practice alerts.

MAKING THE DECISION TO RESUSCITATE

The heart rate of a depressed neonate may be used as an indicator for additional oxygen and will help to dictate the aggressiveness of the resuscitative approach required. When the heart rate is greater than 100, the chance for spontaneous onset of respirations is excellent. The following flow sheet is a guide for resuscitation and is based on heart rate.

- 1) Mild depression: Occasional gasps with a heart rate greater than 100 → face mask oxygen.
- 2) Moderate depression: The initial heart rate is greater than 100, but begins to decrease → oxygen by bag and mask.
- 3) *Profound depression*: The initial heart rate is less than 100 with no respiratory effort → intubate.
- 4) If the initial heart rate is less than 80 per minute: Start cardiac massage and vascular resuscitation (treatment of shock and acidosis).
- 5) No heart rate detectable at birth: Intubate immediately and begin cardiac massage at 100-120 beats per minute; breathe at approximately 20-30 breaths per minute; begin vascular resuscitation.

The 1-minute Appar score also can be used to determine the need for resuscitation. Infants with scores between 7 and 10 generally do very well.

A 1-minute score of 4 to 6 is found in the moderately depressed infant who will require

vigorous stimulation and at least face mask oxygen. Frequently, these infants will require ventilation by bag and mask. If the moderately depressed neonate does not respond to 1 minute of adequate ventilation, vascular resuscitation should be initiated.

An Appar score of zero to 3 is found in the severely depressed infant who will require a minimum of ventilation by bag and mask and ideally should be intubated. Since these babies are acidotic and in shock, vascular resuscitation should be performed following the establishment of ventilation and adequate cardiac output.

The steps in newborn resuscitation resemble resuscitative measures applied to older children and adults and are summarized in Table VI. However, the infant is somewhat unique in that he is unable to defend his body temperature. If a baby is allowed to chill, he probably cannot be adequately resuscitated. Thus, a factor critical to the outcome is the need to keep the infant warm. Most infants do not die because an endotracheal tube cannot be adequately placed since the majority can be resuscitated with bag and mask. But, no baby can be resuscitated if his body temperature is extremely low.

TABLE V

CONDITIONS ASSOCIATED WITH A POTENTIALLY DISTRESSED NEWBORN

- 1. Signs of fetal distress alterations in fetal heart rate, presence of mecanium, etc.
- 2. Cesarean section
- 3. Breech delivery
- 4. A preterm baby
- 5. A grawth retarded baby
- 6. Pralanged rupture af membranes (>24 haurs)

TABLE VI

STEPS IN RESUSCITATION

- 1. Briskly dry infant.
- 2. Keep him warm.
- 3. "30 secand" evaluatian (Scaphaid abdamen rule aut diaphragmatic hernia, anamalies).
- 4. Clear and maintain airway.
- 5. Pravide axygen.
- 6. Suppart cardiac autput if heart rate is less than 80.
- 7. Carrect shack and acidasis.
- 8. Observe carefully.
- 9. Ask far help.

TABLE VII
LEVEL II AND III TRANSPORT RADII

Tawn	Radius (Miles)	Telephane Number
Ames (Mory Greeley)	50	(515) 239-2323
Burlington (Medical Center)	` 50	(319) 753-3292
Cedar Rapids (St. Luke's)	70	(319) 398-7724
Des Moines (Blank Children's)	100	(515) 283-6623
Dubuque (Mercy)	60	(319) 588-8223
lawa City (Mercy)	Local	(319) 356-1331
Masan City (St. Joseph's)	50	(515) 424-7211
Ottumwa (Ottumwo Hospital)	70	(515) 682-7511
Sioux City (St. Luke's)	120	(712) 279-3410
Waterloo (St. Francis)	70	(319) 235-3334
U. af lawa Hospitals (III)	90	(319) 356-1616

CARDIOPULMONARY RESUSCITATION

After the infant has been dried and suctioned, he should be placed in a warm environment and given a brief physical examination. Adequate suctioning can usually be obtained with a bulb syringe. We advise against passing a catheter through the nares or into the oropharynx since it can elicit a vagal response which may result in bradycardia or cardiac arrest.

Warm humidified oxygen should be delivered by face mask, and the heart rate monitored continuously; a falling heart rate may indicate that a more aggressive approach is required.

If the baby does not respond to face mask oxygen, ventilation should be initiated using an appropriately sized mask and bag. Since the tidal volume of a full-term infant is only 20-30 cc, it is not necessary to completely squeeze the bag to achieve adequate ventilation. The effectiveness of ventilation by bag and mask is evaluated by observing chest expansion, listening to air exchange over the lung fields and following the heart rate. In order to allow sufficient time for complete expiration of air, the rate of assisted ventilation should not exceed 40 breaths per minute. Positive pressure breathing may cause abdominal distention. This can be prevented by inserting a nasogastric tube.

If the infant is profoundly depressed, has no respiratory effort and a heart rate less than 100 beats per minute, or is not responding to ventilation by bag and mask, the trachea should be intubated with a proper sized endotracheal tube (3.5 mm for full-term infants) after direct visualization of the vocal cords with a laryngoscope. A stylet may help to stabilize the endotracheal tube.

However, the tip of the stylet should never extend beyond the end of the endotracheal tube, since it may cause a tracheal laceration. The endotracheal tube should not be inserted more than 2 cm below the level of the vocal cords; if inserted too far, the tip of the tube will be in the right main stem bronchus.

External cardiac massage should be initiated if the heart is not beating at birth or if the heart rate is less than 80 beats per minute following 60 seconds of assisted ventilation. The following technique is employed for external cardiac massage in the neonate: 2 fingers are applied just above the heart to the left of the lower sternal border and sufficient pressure is applied to depress the area one and one-half cm (one-half inch). An alternate method is to place both thumbs over the lower sternum and support the infant's back with the other fingers wrapped around the chest wall. The usual rate of external cardiac massage is 100-120 compressions per minute.

Assisted ventilation is given at a rate of approximately 20-30 breaths per minute, yielding a ventilatory/massage ratio of approximately 1:4 or 1:5. It is important to synchronize the ventilatory efforts with the chest wall compressions to prevent pneumothoraces. External cardiac massage should be stopped periodically to assess spontaneous cardiac activity or improvement in heart rate.

VASCULAR RESUSCITATION (CORRECTION OF SHOCK AND ACIDOSIS)

Hypotension and acidosis are usually present in the severely depressed infant and may explain the infant' unresponsiveness to cardiopulmonary resuscitation. Ideally, blood gases, pH and blood pressure should be measured through an umbilical arterial catheter to obtain an estimate of the severity of asphyxia. However, this information is usually not available and clinical estimates must be used to assess the situation.

The shocky infant exhibits peripheral vasoconstriction and appears mottled and pale. The capillary filling time is delayed and a decreased pulse volume is noted. Unfortunately, there are no signs and symptoms which enables one to determine the degree of acidosis in an infant.

If the infant does not respond to adequate cardiopulmonary resuscitation and exhibits the clinical signs of shock, it must be assumed that the baby is acidotic and in shock and vascular resuscitation must be begun immediately.

TREATMENT OF SHOCK AND ACIDOSIS

Since venipuncture of a scalp or extremity vein is difficult in a shocky infant, it may be necessary to use the umbilical vein for vascular resuscitation. A five French catheter is inserted until a free flow of blood is obtained but never advanced more than 8 cm. The catheter should be anchored by tape or sutures and can be utilized for intravenous therapy during transport. However, extreme caution must be exerted when using the umbilical venous route. Hypertonic solutions should be avoided except for extreme emergencies and the catheter should never be left open to air since air embolism may result. Elective use of an umbilical venous catheter for prolonged periods is not advised.

Clysis should never be considered as a reasonable alternative route for supplying fluids to any infant. The practice is fraught with many complications and offers no real hope for improvement.

Plasmanate (10 cc/kg/dose) or a similar volume expander should be given for the treatment of shock. Following the initial dose, a clinical assessment must be made to determine if further volume expansion is necessary. The total volume given to an infant should not exceed 30 cc/kg.

The recommended treatment for the correction of metabolic acidosis is sodium bicarbonate. If blood gas and pH determinations are not available, the infant may be given 2 to 3 meg/kg at a rate of 1 meg/kg/minute. In many community hospitals, sodium bicarbonate is available as a 7 per cent solution containing approximately 1 meg/ml (44 meg/50ml) at an osmolar load of approximately 1500 mosm/L. The tonicity of the solution must be decreased by diluting with sterile water in a ratio of 1 part 7 per cent sodium bicarbonate to 1 part sterile water. D₅W or D₁₀W should not be used as diluents, since each of these solutions furnishes its own osmolar load. A maximum of 2 doses of 2 to 3 meg/kg can be given with relative safety; administration of additional doses increases the risk of hypernatremia and hyperosmolarity.

RESPIRATORY DEPRESSION DUE TO MATERNAL NARCOTICS

Occasionally, an infant suffers respiratory depressions secondary to the narcotics given his mother. In Iowa maternity hospitals, the narcotic drug most commonly used is Demerol. The timing of maternal administration of Demerol (meperidine) is important in determining the risk

of neonatal respiratory depression. If the drug is given within 1 hour prior to delivery, generally, no interference with the initiation of breathing is observed. However, if given between 1 and 3 hours prior to delivery, a significant increase in the number of depressed babies may be seen.

When depression secondary to maternal narcotic type drugs is suspected, the use of Narcan is advocated. The dose is 0.01 mg/kg given IV, IM, or subcutaneously. The drug is supplied in two forms. The form advised for use in the neonate is Narcan Neonatal and contains 0.02 mg/cc. The adult dosage form which contains 0.4 mg/cc is not advised for use in the newborn. Narcan may be repeated multiple times if there is a clinical response.

POST-RESUSCITATION MANAGEMENT

Provision of Warmth

Frequently, stabilization of the neonate is an extension of resuscitation carried on in the delivery room or the operating suite. Since both of these areas tend to be cool, the infant may emerge with a subnormal body temperature. Providing adequate warmth during and after resuscitation does much to ensure a favorable outcome.

"Cold stress" is a term applied to an infant who has been unduly chilled and implies certain metabolic consequences, such as acidosis and hypoglycemia. Also, disseminated intravascular coagulation (DIC) has been associated with cold stress. DIC is a generalized bleeding disorder associated with abnormal consumption of clotting factors. Furthermore, since exposure to cold causes an increase in oxygen consumption, energy stores may be depleted and hypoglycemia may ensue.

In the delivery room, the infant should be vigorously dried with warm towels and placed in a warm environment. A radiant warmer is desirable, since procedures can be carried on under full vision, and the infant will not be chilled during the resuscitation. However, if a radiant warmer is not available, the baby should be placed in a prewarmed incubator and, as soon as possible, taken from the cool delivery room to the nursery. After the infant has been transferred to the nursery, his temperature should be monitored regularly for 6-8 hours or until it becomes stable. Unnecessary procedures, such as circumcision and routine bathing, should be avoided during the stabilization period.

(Table VIII next page, more text page 355)

TABLE VIII

Canditian	Special Instructians far Stabiliza	Level Canducting Transpo	
Prematurity	As indicated by individual conditions.		Level I — Level II if respiratory distress
Respiratary distress — IRDS, oneumonia, and other causes	Chest X-ray. Maintain adequate oxygenation and airway. Maintain heart rate. Carrect acidosis ond shock.	NPO Begin IV fluids.	Level II
Pneumatharax	Chest X-ray. Maintain adequate axygenation and airway. NPO	Surgical cansultatian far placement of chest tube.	Level II
Diaphrogmatic hernia	NPO — begin IV fluids. Intubate immediately. Elevate upper chest.	Naso/orogastric tube inserted ta decompress stomach.	Level II
TEF; esophageal atresia	NPO — begin IV fluids. Intubate.	Elevate chest and head to 45° angle. Frequent suctianing af blind pauch.	Level II
Chaanal atresia	NPO Da nat force nasogastric tube.	Maintain adequate airway — oral airway ar ET tube.	Level II
Pierre-Robin	Place in prone positian. Tangue farward, head down pasition.	Maintain adequate airway — aral airway may be necessary.	Level I if no respiratory distress
Cangenital neart disease	Adequate oxygenotion. May require frequent suctioning.	Supine with head and chest elevated	Level II
GI abstructian — abd. distentian, vamiting	NPO — begin IV fluids Decompress abdomen per nosogastric, leave to straight drain.	Record any stools.	Level I
Gastraschisis or amphalacele	NPO — begin IV fluids. Caver expased defect with warm sterile saline saaked dressing.	Na pressure an defect. Maintain in supine position.	Level I
Sepsis	Check for hypoglycemia.		Level I
Seizures	Manitar heart rate, resp. rate and calar. Maintain airway.	Pratect fram injury (see text).	Level II
Meningamyelacele	Place in prane pasitian. No pressure on meningamyelacele.	Cover meningomyelacele with worm sterile saline saaked dressing.	Level I
Typerbilirubinemia	Send sample of mother's blaad — 10 cc.		Level I
Hypoglycemia	Oral feeding if not contraindicated. Cantinue ta manitar blaad glucase with dext Start IV af D ₁₀ W if true glucase is less than tolerote glucose by gavage ar pa. Manitar infusian of D ₁₀ W (100 cc/kg/24 hou	40 mg and patient is nat able to	Level II
Bleeding disarder	May require bload or fresh frozen plasmo. Send sample af infant's blaad priar to transfusian.	Send sample af mather's blaad.	Level II
Hyperviscasity syndrame	Rule aut h <mark>ypag</mark> lycemia.	Rx for hypoglycemia.	Level I if no respiratary distress

(Continued from page 354)

RESPIRATORY DISTRESS AND OXYGEN REQUIREMENTS

Many infants requiring transport to neonatal intensive care units will have respiratory distress. Although the majority will be preterm infants with idiopathic respiratory distress syndrome (hyaline membrane disease), other causes of respiratory distress must be considered. Several conditions that require surgical intervention may present with respiratory distress almost immediately after birth and thus, mimic IRDS. Pneumothorax and diaphragmatic hernia are examples of such conditions. (Suggestions for the management of both conditions can be found in Table VIII.)

Since both pneumothorax and diaphragmatic hernia require special management in the local hospital prior to transport, it is essential to make the diagnosis as soon as possible. By and large, the diagnosis can be made only with a chest film. Therefore, it is of critical importance to immediately obtain a chest film on any infant suffering from respiratory distress.

Equally important is the necessity to provide adequate oxygen to the hypoxic infant. Fear of causing retrolental fibroplasia has made many physicians and nurses hesitant to provide distressed infants with adequate amounts of oxygen. While retrolental fibroplasia is clearly a source of morbidity, especially in the preterm infant, nonetheless, hypoxia is recognized as the major source of neonatal morbidity.

Oxygen should be administered at the lowest concentration at which the infant is stable as determined by monitoring his heart rate and skin color. The heart rate should be maintained above 100 beats per minute. If cyanosis is present, the oxygen concentration should be raised to a level which will abolish cyanosis. However, in preterm infants, heart rate may be the only reliable indicator of blood oxygen concentrations.

After the infant has been stable for 15 minutes, the oxygen concentration should be lowered by a factor 10% to see if the lower level can be tolerated. An accurate record must be kept to demonstrate the attempt to provide the most appropriate oxygen concentration.

MANAGEMENT OF HYPOGLYCEMIA

The signs and symptoms and clinical conditions associated with hypoglycemia are found in Tables II and III. Every newborn should have dextrostix

screening for hypoglycemia at approximately two hours of age. Infants at high risk for developing hypoglycemia, such as small for gestational age (SGA) babies and infants of diabetic mothers, should be tested hourly for the first 8 hours of life and then every 4 hours for the remainder of the first day or when symptoms arise. If the dextrostix reads 45mg% or less, a blood sample should be sent for true glucose determination and treatment initiated. If the infant can tolerate feedings, D₁₀W should be given by mouth. If oral feedings are not tolerated, or if the infant may be compromised by oral feedings, glucose must be administered intravenously. Initially, a bolus of 5 to 10 cc/kg of D₁₀W is given. This must be followed by a continuous infusion of D₁₀W at a rate of approximately 100 cc/kg/24 hrs. Initial bolus glucose administration of D25W has been shown to cause several problems and, therefore, should not be given. Intravenous administration of glucose should be continued until the infant can be maintained on oral feedings.

MANAGEMENT OF CONVULSIONS

Following asphyxia, seizures may be observed during the first 24 hours of life. Since hypoglycemia is a common and correctable cause of seizures, a dextrostix determination shoud be obtained in each infant with a seizure. Seizures can be life-threatening when associated with respiratory distress; therefore, resuscitation equipment and supplies should be readily available at the bedside. An oral airway or endotracheal tube will be required if the seizure causes the infant's tongue to occlude the airway. If a proper airway is maintained, infants with seizures rarely require oxygen. Consultation with a pediatrician should be obtained prior to administering any anticonvulsant drugs to the neonate.

NEEDS OF THE PARENTS

Early parent-infant contact is vital; therefore, if an infant must be transferred to a neonatal intensive care unit, it is important that the parents are allowed to see and touch their child. They should be given information about the infant's condition and the reason for transfer. The parents should be told about the referral hospital and given the names and phone numbers of people who will be caring for their infant. While the mother remains at the community hospital, she should be kept informed of the infant's progress and given support to help alleviate her anxiety.

TECHNICAL ASPECTS OF TRANSPORT—LEVEL I HOSPITALS

Trained personnel and appropriate equipment and supplies must be provided by each hospital assuming the responsibility for transporting neonates. The following are considered essential to conduct infant transport:

- 1) An experienced person to conduct the transport (physician, nurse or physician extender).
- 2) A transport device (incubator) which provides sufficient warmth.
- 3) Ability to provide an oxygen-enriched environment during transport.
- 4) A device to measure the inspired oxygen content.
- 5) A light source to allow adequate observation of the infant.
- 6) A device for monitoring the infant's heart rate (cardiac monitor).
 - 7) Mechanical suction.
- 8) Appropriate masks and bags for different sized infants.

The success of an infant transport is directly related to the skill of the individual conducting the transport. Since this person will be required to make judgements and perform technical tasks during transport, each hospital desiring to provide infant transport services must have specially trained nurses or physician extenders available when a physician does not accompany the infant. Training for transport is provided by the perinatal centers in the State of Iowa.

The transport process should be initiated by a telephone call to the perinatal intensive care center as soon as the decision to transport has been made. In some cases, it may be necessary to consult the center for advice regarding the advisability of transport. A summary of the infant's chart should be obtained as soon as possible and all X-rays and other information pertinent to the infant's hospital course should be sent with the baby. It is also important to include historical data pertaining to the mother's prenatal course and the labor and delivery period. A 10 cc tube of clotted maternal blood and 10 cc of cord blood, if available, should also be sent with the transport team.

Certain patients may not impose significant transport risks and may safely be transported by community hospitals. For example, mature infants with hyperbilirubinemia can be managed with little difficulty. However, in no instance should a critically ill infant be transported by the local hospital if transport can be arranged by the regional perinatal center. When cases of uncer-

tainty arise, a call to the neonatal unit will usually resolve the issue.

TRANSPORT CAPABILITIES OF IOWA'S LEVEL II PERINATAL CARE CENTERS

The status of neonatal transport capabilities in Level II perinatal care units was assessed by a questionnaire sent during the month of December, 1977. All centers were found to be basically equipped to manage the high risk infant during transport. All of the Level II centers provide a minimum of the following: transport isolette, cardiac monitors, intravenous infusion pumps, oxygen analyzers, infant sized bags and masks and mechanical suction.

Apnea monitors are used by some centers but avoided by others, since the sensitivity of the machine is such that it is activated by the movement of the infant or the transport vehicle. A cardiac monitor is always considered mandatory because the noise level prohibits adequate auscultation during transport. Only two Level II centers utilize respirators in transport, but this is not surprising since an infant can be adequately ventilated with a bag and mask in the hands of an experienced nurse. All Level II centers responded that their transport nurses were capable of performing assisted ventilation by bag and mask.

All Level II transport nurses are capable of testing for hypoglycemia (dextrostix) and performing external cardiac massage. Not all nurses have been trained or permitted to begin IV's, administer medications during transport, or intubate an infant. Thus, the infant should be adequately stabilized prior to the arrival of the Level II transport team and should be in the best possible condition before transport begins.

Concern has been expressed over the delay between the referral call and arrival of the transport team. The hospitals surveyed reported a 30-60 minute delay between the initial call and departure of the transport team. The delay was frequently due to the temporary unavailability of the transport nurses or vehicle used for neonatal transport.

The transport radius of each Level II center is listed in Table VII. There is some overlap from center to center and the referral hospital chosen is a matter of preference of the referring physician.

Table VIII lists clinical conditions that may require neonatal transport and offers suggestions about the mode of transport. The majority of

neonatal illnesses can be managed in Level II centers. However, certain conditions require direct transfer to the Level III center at the University of Iowa. If questions concerning the most appropriate mode of transfer arise, consultation with pediatricians in the Level II or III centers are encouraged. When physicians in community hospitals have doubts about the appropriateness of equipment or capability of personnel available for transport, it is suggested that the regional neonatal intensive care unit transport the baby.

SUMMARY

A review of conditions in the neonate that may necessitate transport to a neonatal intensive care unit has been presented. Suggestions for resuscitation and stabilization of the neonate were offered and a guide for determining the proper mode of transport presented. The status of transport capability in Iowa's Level II neonatal intensive care units was surveyed and presented in summary form.

The authors encourage physicians and nurses working in community hospitals to consider the advantage of prenatal transport. However, when transfer of the sick newborn is unavoidable, proper resuscitation and stabilization measures in the community hospital offer the neonate a better chance for a good outcome than a hastily conducted transport.

QUESTION BOX

(Continued from page 345)

What is being done to save the critically ill newborn?

The March of Dimes has mobilized a national coalition of health care professionals and citizen volunteers to make expert care available to all dangerously ill newborn. A birth defects computer information system is near its operational stage after years of funding and development by The National Foundation in cooperation with the Tufts-New England Medical Center and the Massachusetts Institute of Technology. This system will enable community physicians to receive the

latest computerized information about birth defects by way of community terminals connected with the main system through public telephone lines.

Generally speaking, do you feel the voluntary health agencies are conducting programs worthy of the public support they receive?

Voluntary health agencies have served and are serving as catalysts in developing many preventive measures, treatments and even cures for today's health problems. For example, our own agency was responsible for development of the Salk vaccine. Working cooperatively with various agencies and individuals, the VHA's can help assure effective medical techniques, vaccines and other technological breakthroughs.

MEDICAL MISCELLANY

second surgical opinions... The IMS issued a news release September 11 expressing concern over the anticipated HEW national promotional program to advocate second surgical opinions. The release reaffirmed the profession's historical support for assisting patients in obtaining second opinions whenever they are desired. However, it rejected as unnecessary and inflationary the government's plan to establish a specific framework to handle second opinion inquiries from the public.

IVCCC ACTIVE . . . The Iowa Voluntary Cost Containment Committee is implementing a program parallel in nature to the national "Voluntary Effort." This body has been formed by the IMS and the Iowa Hospital Association. Main effort of the IVCCC has been to promote institutional acceptance of a commitment to reduce the rate of increase in hospital expenditures and in new capital investment. The IVCCC has adopted guidelines to assist hospitals in forming cost containment committees. It is hoped such committees or some similar mechanism can be established at the facility level to examine ways of reducing costs.

The Current Status of Services For the Handicapped Child

JOHN C. MacQUEEN, M.D. **Iowa City**

DURING THE PAST DECADE and a half, a series of events has occurred to revolutionize the services available in Iowa communities for handicapped children. These have drastically changed the responsibilities of physicians in the care of these children. It is important for physicians to understand why these changes have occurred and their new responsibilities.

PHYSICIANS AND THE HANDICAPPED

First, let us review candidly the past role of physicians in the care of the handicapped child. On the basis of professional training, physicians knew more about the growth and development of children and about the signs of disability than any other professional group. They also knew about the diagnosis and treatment of the diseases and disorders that resulted in handicaps. As they provided child health supervision, physicians used their skills to identify children whose development deviated from normal and determined those who needed special services. When a physician identified a child with a handicap, he/she worked actively with the child's school to design an appropriate program. Although it now makes educators shudder, children were frequently held back or advanced in school on the basis of a physician's estimate of their intellectual ability. If the child had a complex problem, he/she was most often referred to a medical center, the University Hospital School or the State Services for Crippled

This report examines the implications of recent changes in the delivery of health services to handicapped children. In particular it discusses the new role the physician has in providing care for handicapped children. A system of regional evaluation and planning clinics being developed in lowa as an additional resource to meet modern care needs is described.

Children's program for further diagnosis. Physicians rather automatically referred severely retarded/handicapped children to the state hospitals for long-term residential care, and it was not unusual for a physician to refer a neonate with Down Syndrome directly from a maternity nursery to a state hospital. Physicians made these decisions on the basis of their professional training in child development, their knowledge of neurological disease, and the experience they gained by monitoring the progress of many children. By current standards physicians were overextended in making some of these decisions and, in some cases, they were in error. Although such decisions can be criticized by hindsight, they were in keeping with societal attitudes and professional practice standards of the time.

To their credit, it must be remembered many physicians elected to work with handicapped children — provided the professional leadership needed to change society's attitudes towards the handicapped — and through research identified new knowledge to eliminate many diseases that resulted in handicaps. And, although one hears of physicians who were not appropriately involved with the care of the handicapped, in truth, the great majority of practicing physicians provided the families of handicapped children with support and counsel before other professional groups were involved.

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CHANGES IN PUBLIC PROGRAMS

Until the early 1960's, there was no public system to provide community services for physically disabled and/or educationally handicapped children. Each community determined the services to be available, and as a result great differences occurred between communities in number and quality of services. The public schools were charged to provide an educational experience for children who could profit by a traditional classroom program, however only a limited number of special education programs for retarded children emerged. Very few communities established day care programs to provide training services for handicapped children, and severely retarded children were sent to the state hospitals. These arrangements for care reflected the public's attitude toward the handicapped person.

The change in the care for handicapped children began in the early 1960's with the report of the President's Panel on Mental Retardation.* Although not all of the Panel's recommendations were implemented immediately, they were accepted as national objectives and the status of the handicapped child was never to be the same.

Two of the recommendations made by the Panel are important to this report. (1) Finding that few retarded children were receiving appropriate education, the Panel recommended that special education rooms be created within the public school system and that teachers needed to provide special education services be trained. (2) Finding that large state hospitals for the handicapped could not provide personalized care for the large number of children they housed, the Panel recommended these hospitals be replaced by regional, community and local facilities.

The nation's school system moved quickly to respond to the recommendation to create special education classes and to train teachers and others to work with handicapped children. Within a few years, almost all school districts had special education rooms. However, those working in the classes soon became convinced the concept of free-standing special education classes (apart from regular classes) was not the optimal arrangement. They came to believe handicapped children were labeled by this experience and suffered from not being with normal children. Out of this concern came the current educational theory of mainstreaming, wherein children who cannot keep up with the usual classroom instruction are provided

supplemental instruction by a special resource teacher who assists them in their area of educational deficit while they continue to attend a regular classroom or who would be disruptive are children who cannot profit from being in the regular classroom or who would be disruptive, are assigned to self-contained special education classrooms.

In this same time, there has been a great increase in the number and the sophistication of the training and research programs to prepare audiologists, speech/language personnel, psychologists, developmentalists, and teachers to work in the field of special education. Each of these disciplines identified new knowledge about the diagnosis and treatment of disorders in their particular field.

The states, including Iowa, did not move as quickly to implement the second of the two recommendations — that of replacing the large state hospitals. In fact, little was done about this recommendation until 1976 when, with the passage of P.L. 92-223, the responsibility for the intermediate care facilities for the mentally retarded was transferred to the Medical Assistance Program (Title XIX) of the Social Security Act. The change made Title XIX funds available to pay for the care of children in state hospitals (a) if the hospital conformed to federal standards, and (b) if the state created a statewide plan to provide regional services.

The State of Iowa, and most other states, are in the process of changing their hospitals to meet these federal standards. The two Iowa state hospitals are in varying stages of building new facilities, increasing the number of staff, and decreasing the number of children served.

REGIONAL SERVICES

Approximately two years ago, the State Department of Social Services began to develop the required statewide plan to provide regional services for the handicapped. Each district in the state was required to create a core planning group charged with developing a regional plan to provide services for the handicapped. One of the major problems each district planning group encountered was that of identifying medical and health services for handicapped children when they returned to facilities in their region or community. At this time, these regional plans seem stalled for lack of financial support and perhaps from lack of designated priority. It is apparent arrangements must be made for these children to

 $^{^{\}ast}$ A Proposed Program for National Action to Combat Mental Retardation, October, 1962.

have at least the medical care and support services they have been receiving in the state hospitals or the change will be a cruel hoax.

Because only a few physicians were involved in the development of the regional plans, the great majority of practicing physicians have no knowledge of them. This creates the difficult situation where on one hand a state agency is charged by statute and by regulations to insure medical services are provided in regional or community programs; while on the other hand, the medical community that must provide the services has not been involved in the planning and finds that state government and the people who would be served by the programs expect services that are difficult, if not impossible, to provide.

Increasing the availability of special education classes and decreasing the size of state hospitals has not yet remarkably altered the responsibility of physicians to provide services for handicapped children. In contrast, the enactment of federal and state legislation concerned with the education of handicapped children has entirely altered the state's method of providing services for handicapped children and has changed the physician's role in the provision of care for these children.

THE NEW RESPONSIBILITY OF THE PUBLIC SCHOOL SYSTEM

During the past decade, federal legislative activity concerned with education of the handicapped has resulted in the passage of the Education for All Handicapped Act of 1975 (P.L. 94-142). This law is important because it declares that all children will have access to a free and appropriate educational experience. It must be noted the public school system has not implemented these changes spontaneously, but has responded to a series of court decisions that there be established an appropriate educational experience as a civil right.

The public school system is now responsible for providing this appropriate educational experience for each child, no matter his/her ability to learn, no matter his/her degree of disability. No longer is the responsibility of the public school system limited to providing an educational experience for children who can learn to read and write. The school must now train the moderately handicapped child, who cannot learn to read or write, to have socialization and self-care skills. The school must train the severely handicapped child, who cannot care for himself/herself, to eat, to sit, to speak. To do so, the school must employ

speech and hearing personnel, developmentalists, physical therapists, etc., to provide services for the handicap that may adversely affect a child's education or training. Thus, the traditional definition of public education has been expanded, and the responsibility of the school system has been revolutionized.

This legislation is also important because it reversed this nation's historical policy that education was the responsibility of the community. The federal government is now heavily involved with providing financial support for these programs, for establishing standards for the programs, and for insuring that states make these services available. The federal regulations are detailed. They describe the services that must be available and who will provide the services; they describe parental rights and the requirement that each child have an individualized education plan. More than any recent event, this federal legislation has revolutionalized the status of the care of the physically disabled and/or educationally handicapped child.

In 1974 prior to the passage of P.L. 94-142, the State of Iowa enacted Senate File 1163 that required school districts "to make provision, as an integral part of public education, for special education opportunities sufficient to meet the needs and maximize the capabilities of children requiring special education,"* thus insuring equal access to education for the handicapped. The Iowa Area Education Agencies (AEAs) created to provide these services now employ an array of professional personnel — special education teachers, speech and hearing personnel, psychologists, physical therapists, occupational therapists, and developmentalists — who are capable of making many new and important education and treatment services available to handicapped children.

CHILD FIND

Not only does the Education for All Handicapped Act charge the public school system to provide free and appropriate services for all handicapped children but it requires the school system to conduct a program to identify children between the ages of 0 and 5 who may have learning and learning-related problems. It is called the "child find" program and it is conducted on a regional basis by each AEA. A traveling team made up of a psychologist, speech and hearing examiner, and nurse is developed. The AEA ad-

^{*} Section 281.2, Code of Iowa, 1975.

vertises that the team is available on a certain date to examine children whose parents are concerned about a potential developmental problem. If the team identifies a problem, the child is enrolled in the appropriate AEA program. One could wish this program had been developed after a thorough discussion of the matter with the medical community so it could function as a resource for physicians to use rather than as a parallel and, at times, a conflicting service.

Thus, it is apparent that a new system for providing services for physically disabled and/or educationally handicapped children has been created. Gone, far gone, are the days when the physician was the only person in the community informed about the handicapped child. Medicine must move quickly to determine its new responsibilities within this complex new system.

NEW INFORMATION

Although primary physicians can and do provide adequate medical evaluations and care for the great majority of children who, for usual reasons, require special education, few physicians have the skills to provide contemporary diagnostic and treatment services for children with complex physical disabilities and/or educational handicaps. In the last two decades medical scientists have identified much new information. This information has resulted in the recognition of an array of new diseases and disorders that result in handicaps such as PKU, cerebral lipidoses, Klinefelter's syndrome, mucopolysaccharidosis, infantile spasms, cerebral dysfunction related to high risk birth. There is new information about the treatment of children with handicaps such as positioning therapy for the child with a neuromotor disability and psycho-pharmacological therapy for the treatment of a child with a behavior or learning disorder. There is also new information about the causes and types of cerebral dysfunction that result in motor, language, and learning disabilities. Unfortunately, only a limited amount of this new information has been included in the curriculum for medical students, in graduate training programs, or in continuing education programs for practicing physicians. As a result, few practicing physicians are prepared to care for children with major handicaps.

Other professional groups in child care such as audiology, speech pathology, psychology, physical and occupational therapy, have also identified and organized new information in their fields. Understandably, that specialized information exceeds the general knowledge that physicians have in those fields. Therefore, if handicapped children are to have access to modern care, representatives of these professional groups with their specialized information must be involved.

THE PROFESSIONAL TEAM

It is common for children with significant handicaps to require the care of a team of trained personnel, of which the physician is an important member. For instance, if a child has a hearing problem that is caused by repeated bouts of infection, an audiologist can provide important information regarding the progress, the severity, and the type of hearing loss, while the physician provides the acute treatment for the disease. At the end of the acute treatment, the audiologist will be involved with rehabilitative services. Such working relationships are needed to provide integrated care and continuity of care.

In communities where medicine has not established these working relationships with other professional groups, major problems related to turf occur. The idea of team care is an anathema to some physicians and predictably raises the question, "Who is in charge?" The question is important and complex but cannot be dogmatically answered. In the great majority of chronic care situations, this question can be answered without difficulty by determining who is best informed about the problem. Such a method of decisionmaking has been used for many years by physicians involved with the care of patients with chronic disease. When different professions work together, as when physicians work together, the question of who is in charge infrequently surfaces if the individuals involved have a working relationship based on respect for each other's skills. Such working relationships cannot be established if there is ignorance of the other person's skills.

Therefore, rather than spending time in determining who is in charge, we might better spend our time understanding the contribution made by other professional groups and so create working relationships based on mutual understanding and respect.

As difficult as it may be for physicians to accept, modern care for handicapped children cannot be the sole responsibility of the physician. Physicians must accommodate to sharing the responsibility for the diagnosis and treatment of handicapped children with other trained personnel.

NEW SETTINGS/ NEW ARRANGEMENTS

To provide team care, it is necessary to have a setting where several professionals can work together. This creates a problem because the usual physician's office is not designed for that purpose. So a physician must, on occasion, leave his office to go to a clinic setting to provide services for handicapped children. This creates a related problem. The unit fee schedule for office care is not applicable when a physician serves as a member of a diagnostic team and other methods of payment must be designed.

INTEGRATED RECORDS

The physician who becomes involved with team care for the handicapped soon recognizes another problem. It is not possible to use the traditional medical record while providing modern care for children with serious handicaps. All public programs for children now require each child have a formal written plan that includes not only the medical diagnosis, but a plan of services and a statement or projection of outcome. Physicians' reports must now not only be understood by themselves and by other physicians, but also by other professionals who are participating in the care of the child. The physician's report must be designed so it can be used as part of a total service plan for the child. All this requires a new method of medical recordkeeping.

MEDICINE AND THE PUBLIC SCHOOLS

It can be asked, "Exactly what is the problem?" "What type of children are we talking about?" "What changes does this legislation make in a physician's responsibility for his handicapped patient?" The new legislation defines the "handicapped child" as, ". . . being mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, other health impaired, deaf-blind, multi-handicapped, or as having specific learning disabilities who because of those impairments, need special education and related services. . . .

"Orthopedically impaired . . . includes impairments caused by congenital anomaly (e.g., clubfoot, absence of some member, etc.), impairments caused by disease (e.g., poliomyelitis, bone tuberculosis, etc.), and impairments from other causes (e.g., cerebral palsy, amputations,

and fractures or burns which cause contractures)." "Other health impaired means limited strength, vitality, or alertness due to chronic or acute health problems such as a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes." So, it can be seen that almost any child with a chronic illness or disorder is defined as a handicapped child.

It is the position of medicine that a handicapped child's physician is reponsible for working with the school to design a program for the child that takes into account the child's health problem. But the new legislation makes no reference to or makes any arrangement for the physician to be involved in designing the child's program. The regulations only state that the child's "health history" will be used by the school in determining the child's placement in a special education program.

In the past, the great majority of handicapped children received their physical therapy, occupational therapy, speech and hearing services, etc., through programs monitored by, if not directed by, physicians. The new system makes physical therapists, occupational therapists, speech and hearing therapists the employees of the school's education program. Thus, the legislation makes no arrangement for a physician to be involved with designing the program for a handicapped patient who is under his medical supervision, and it-determines that the special education system will employ and direct professionals who are providing health-related services.

The legislation creates a problem for medicine because it creates a confrontation between the educator who is fulfilling an assignment and the physician who alone can legally provide medical services and who has the option whether to participate. There will be physicians who will elect not to cooperate with these programs. But the profession would gather little public support by making the decision not to provide services for handicapped children. Better that medicine quickly appraise the situation and assume its historical position of leadership in the field and participate in the creation of a modern system that will allow physicians to be appropriately involved with the provision of services for handicapped children.

^{*} Code of Federal Regulations, 45CFR 121a.5, implementing the Education for All Handicapped Children Act (P. L. 94-142). Federal Register, August 23, 1977.

PROPOSED SOLUTIONS TO THE PROBLEMS

In the preceding section, the changes that have occurred in the provision of community services for handicapped children have been presented, and some of the problems those changes create have been identified.

It is apparent that one of the major problems with the new system is that it does not recognize the responsibility of the physician to participate in the design of his handicapped patient's school program. The answer to this problem cannot be legislated. It will require each physician to take the initiative to inform the school system about his handicapped patient's health problem and that, as the child's physician, he/she expects to be appropriately involved with developing and monitoring the child's school program. It will also be important for representatives of each county medical society to meet with appropriate representatives of the school system to discuss school and physician relationships under the new legislation how the school can alert the physician that a child is being considered for special education — how the physician can inform the school about a child's special health needs — how to create a cooperating, interprofessional community child team concerned with handicapped children.

There are special problems concerned with providing services for children who have multiple or complex handicaps. These problems include a shortage of physicians who are interested and skilled in the provision of services for such children, the need for the integration of services provided in the community, the need for a modern community diagnostic and planning team, and a new community organization who will sponsor that team. The following section describes a new system that is being developed in the State of Iowa that will address these special problems.

INTEGRATED EVALUATION AND PLANNING CLINICS

Children who need special education frequently have physical health problems. Therefore, each child who is being considered for special education services should have a routine physical examination to determine if a physical problem exists that could influence his/her educational experience. That examination can be conducted by the child's primary care physician. The examination will in many cases reveal no medical problem. In some cases the examination will reveal a problem that can be diagnosed and cared for

by the child's primary physician. Such children do not need the services provided by the community clinics here described.

If the examination reveals a medical problem or any other problem that requires consultation or secondary care, it is proposed the child be referred to one of the developing regional evaluation and planning clinics. Such clinics provide social, medical, and educational services for children with complex problems. The system has been in development for two years, and pilot clinics have been conducted to collect an Iowa experience about how such units can best function.

A clinic is to function in each AEA region of the state, thus giving all Iowa children access to such services. The clinic is to be jointly sponsored by the state and local agencies and other persons concerned with child services. It is important to understand the clinics will not employ new personnel to conduct the examinations. The staff of the clinics is to be composed of professionals assigned from the Area Education Agency (AEA), the Department of Social Services (DSS), the Department of Health, and other personnel involved with child care. For certain, we must not create a new system that will duplicate established services. In addition, there will be a clinic physician who is especially trained in the care of handicapped children. The clinics will serve as a meeting place where the above stated personnel and agencies can meet to function as a team to develop an integrated plan of care for the child. The clinics will be able to answer the problems presented by the majority of handicapped children, but some children will have complex problems necessitating referral to an Iowa State Services for Crippled Children's clinic or the Developmental Disability Division in the University Hospital School.

The problem of a shortage of physicians skilled in providing services for handicapped children was discussed earlier. One of the major purposes of developing this system is to identify and train the physicians needed to provide these services. The physicians who serve in these clinics will do so because they are interested in the field and after they have received special training in University Hospital School. The physician's role in the integrated clinic would vary. Some patients will come to a clinic with a complete or nearly complete medical examination, in which case the physician would interpret the meaning of the physical findings to the remainder of the team and

participate in the development of an integrated plan of services for the child. Some patients will come with incomplete medical examinations, in which case the physician will serve as the diagnostician and will interpret the meaning of the medical findings to the remainder of the team. The clinic physician will not provide continuing care, but will refer the child back to his/her primary care physician with the plan that has been designed by the evaluation and planning team. Thus, the physician will have acted in a usual and ethical fashion as a consulting physician. This arrangement will not be acceptable to some physicians who will consider it an infringement on the physician/patient relationship. There is no particular answer to that concern other than to say the system is designed to provide contemporary medical services for children with special problems and it does so by using usual and ethical referral practices.

If the child's physician can provide contemporary diagnostic and treatment services for his/her patient and wishes to work directly with the representatives of the other disciplines or agencies in the community — then that child's care can be so handled and no referral to the clinic need be made. There is no stated or implied policy that all children should receive their evaluation and planning services in these clinics. Each physician will make the decision as to whether or not to refer children to the clinic.

SUMMARY

In the past, physicians were often the major, if not the only, professional persons in many communities who were concerned with handicapped children. That has changed. A number of professional groups concerned with child care have enlarged and increased their specialized skills so that modern care of the handicapped child is now provided by a team.

Recent federal and state legislation has created a new system of providing services for handicapped children and has assigned the public school system broad responsibilities to provide not only training and educational services, but also other services for handicapping problems that could adversely affect the educational experience of children.

Of particular concern is the fact that this new legislation does not recognize the responsibility of a physician to be involved with designing the school program of his handicapped patient. It is important for physicians to be informed about these changes and to take the initiative to make arrangements so they can fulfill their responsibility to provide continuing medical supervision for their handicapped patients under the new system.

It is the responsibility of each physician to contact the schools of his handicapped patients to assure that he is involved with the design of his patient's school program.

It is the responsibility of each county medical society to establish new arrangements with school systems.

It is the responsibility of the medical community at large to support the creation of regional evaluation and planning clinics to provide needed integrated services for handicapped children.

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M. E. ALBERTS, M.D., Scientific Editor

TWIN RESPONSIBILITIES

Featured in this issue of the JOURNAL are two articles which provide physicians important information about specialized care for infants and children. The Neonatal Section of the University of Iowa Hospitals presents the "who, when and how" of transport of the high risk neonate. Lower mortality rates for newborn infants reflect (1) the improved care given these patients, (2) the increasing diligence of Iowa physicians in recognizing the needs of the high risk infant, and (3) use of appropriate care when and where indicated.

The report by Dr. Hein and his associates reviews common problems of the neonate that could make it necessary to refer the patient to an intensive care facility, as well as principles of preparing the infant for transport. Proper resuscitation and stabilization of the neonate are prerequisite to decreasing mortality during the crucial hour or so before the infant is received by the neonatal intensive care nursery. The authors discuss the status of the transport system in Iowa and explore the most appropriate mode of transport under various clinical situations.

The entire article provides an excellent summary of the scope of care for the high risk neonate. The various tables present concise summaries of the possible implications of various signs and

symptoms, equipment and supplies necessary for proper care, as well as special instructions for stabilization of the high risk infant under various clinical situations.

Another report, again from the Department of Pediatrics of the University Hospitals, is a review by Dr. John MacQueen of the delivery of health services to handicapped children. Legislation in recent years has greatly changed the opportunities available to the child with physical and mental handicaps. Public schools must provide, in addition to educational experiences, instruction in socialization and self care skills. The responsibilities of the public school systems have been greatly revolutionized.

Iowa has had a reasonably good record regarding the welfare of children. The new responsibilities are great, and the review by Dr. MacQueen is must read material by Iowa physicians who have any contact with children — pediatricians and family practitioners are not the sole practitioners so involved; the physician involved with muscle disorders, speech and hearing problems, neurologic malfunction, and mental disorders of children is equally responsible to aid the unfortunate handicapped. Dr. MacQueen places the problem before us, and it behooves all of us to read his message and take a hard look at all the implications.—M. E. A.

PERSONAL ATTIRE

It may be an old cliche that "clothes make the man," but some recent investigations tend to show that the way you dress may affect your life. Psychological studies at Smith College show that, in general, people are more likely to be honest and straightforward with you if you are well

dressed than if you are not. Another study reveals people are more helpful in giving assistance in a troublesome situation to a person more attractively attired. Furthermore, a study at the University of New Mexico found that most people are more likely to overlook out-of-line conduct, social slights and inconsiderate behavior with better dressed subjects. Another study reveals that a person's mood may be altered by what he/she

EDITORIALS

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wears—certain clothes make the individual "feel great."

True, what a person wears may not have a direct effect upon his accomplishments or abilities. However, it may affect those in the same surroundings, either by tending to arouse feelings of difference, or the need to follow suit. Modes of dress change with the times, and I observe that the pendulum is swinging back to more "acceptable" attire.

Several years ago the youth were more casual—perhaps by some standards "sloppy." Some improvement has been noted. Yet, as I have observed students on the college campuses notably medical colleges, there is some room for improvement. If the statistics are valid, that what a person wears affects his interpersonal relationships with others, a person dealing with the most personal aspects of life would seem more in need of fostering trust and honesty and straightforwardness.

Habits are formed during the growth process. Habits of appearance may involve dress codes (which some claim are invasion of privacy), but so be it. Flambouyant, outrageous, "far-out" attire versus conservative dress is not the question. Neatness and adherence to convention are important, and a T-shirt with a wild imprint on the front is not very conventional. Comfort, a degree of conventionality and some conservative tendencies should mix well. - M.E.A.

RESPONSIBILITY FOR UNNECESSARY SERVICES

Would you agree that the physician should be responsible for the cost of unnecessary medical service? Such a proposal is made in an article* published in the NEW ENGLAND JOURNAL OF MEDICINE. The authors propose that the physician should share financial responsibility for over-utilization of services that are ordered or provided. There is a lack of financial incentive for

(Please turn to page 367)

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Tenuate Dospan^e

(diethylpropion hydrochloride NF) controlled-release

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Brief Summary
INOICATION: Tenuate and Tenuate Dospan are indicated in the
management of exogenous obesity as a short-term adjunct (a
weeks) in a regimen of weight reduction based on caloric restriction
The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINOICATIONS: Advanced arteriosclerosis, hyperthyroidism,

Con thankolda Lows. Advanced attended loss, hyperhyrodism, known hypersensitivity, or idiosyncray to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result). WARNINGS: If tolerance develops, the recommended dose should

amine oxidase intolioris, (hypertensive crises may result). WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Prug Dependence*: Tenuate has some chemical and pharmacologic similarities to the amphetamines and other lelated stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. Use in The most severe manifestation of chronic intoxications is bsychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age. PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension, insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypertension.

the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of

should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

AOVERSE REACTIONS: Cardiovascular: Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthyyoung male after ingestion of diethylpropion hydrochloride. Central Nervous System: Overstimulation, nervousness, restlessness, dizziness, literiness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydiasis, diowsiness, malaise, headache; tarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. Gastrointestinal: Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. Alleraic: Urticaria, tash, ecohymosis, erythema. Endocrine: ances. Allergic: Urticaria, rash, ecchymosis, erythema. Endocrine: Impotence, changes in libido, gynecomastia, menstrual upset. Hematopoietic System: Bone marrow depression, agranulocytosis, leukopenia. Miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND AOMINISTRATION: Tenuate (diethylpropion hydro

DOSAGE AND AOMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVEROOSAGE: Manifestations of acute overdosage include rest-lessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmas, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxaction is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine*) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates fenuate overdosage.

Product Information as of April, 1976

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References: 1. Citations available on request — Medical Research Department, MERRELL RESEARCH CENTER, MERRELL-NATIONAL LABORAT ORIES, Cincinnati, Ohio 45215, 2. Hoekenga, M.T., O'Dillon, R.H., and Leyland, H.M.: A Comprehensive Review of Diethylpropion Hydrochloride. International Symposium on Central Mechanisms of Anorectic Drugs, Florence, Italy, Jan. 20-21, 1977.



^{*} Eisenberg, J. M. and Rosoff, A. J.: Physician responsibility for the cost of unnecessary medical services. N. Eng. J. Med. 229:76-80, 1978.

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fee-for-service physicians to contain costs, and the law does not place on doctors any legal responsibility to see that services utilized are economically justifiable. It is evident the physician is judged on the medical correctness of the treatment rendered, not on its financial soundness. The authors present several arguments for expanding the legal basis for physician responsibility. They cite expansion of tort law, implied contract, redesign of insurance mechanisms, informed consent and equitable estoppel.

BOONDOCKS MEDICAL SOCIETY FORMED

A new medical organization was delivered into existence in Mason City in mid-August. Approximately 100 physicians from northern Iowa and southern Minnesota, with spouses, shared in formation of the Boondocks Medical Society. The charter members disavow direct affiliation with any other medical organization and claim the existence of BMS is primarily for the social benefit and euphoria of the membership.

Officers elected include Wendell W. Taylor, M.D., Sheffield, president; Monroe Allison, M.D., Northwood, vice president north; Robert McCool, M.D., Clarion, vice president south; Gene Barrett, M.D., Rockford, vice president east; John Schutter, M.D., Algona, vice president west; Lyle Fuller, M.D., Garner, secretary, and Dorothy Heuermann, M.D., Hampton, treasurer.

Awards were presented: Vince Adams, M.D.,

Increasing the physician's responsibility would require uniform definitions of medical necessity, reliable means for predetermining the need for services, and effective penalties or incentives. The authors propose a system of peer review that would incorporate a plan for sharing of financial risk by the physician, hospital, insurer and the patient. It is suggested that acceptance of financial responsibility by physicians could obviate the need for external regulation. That alternative arises again. We as physicians must control our responsibilities in a manner acceptable to society or external forces will dictate our actions. It is either us or them. — M.E.A.

Rockwell (Endangered Species Award); Willis Dankle, M.D., Clear Lake (Blue Shield Representative Award); Samuel Leinbach, M.D., Belmond, L. W. Eller, M.D., Kanawha, Earl Jurgenson, D.O., Meservey, Bruce Andersen, M.D., Greene, and Jay Houlahan, M.D., Mason City (Old Timer Awards). In anticipation of his appointment as acting dean of The Boondocks College of Medicine (if one is ever formed), H. W. Morgan, M.D., Clear Lake, was presented the Old Lang Syne Award.

The officers and charter members anticipate no activity in the coming year except to plan the second annual meeting. Honorary memberships to physicians living in other parts of the state and nation are being considered. No federal funds have been used to support the organizational efforts.

Additional inquiries regarding the Boondocks Medical Society may be addressed to Surgical Associates of North Iowa, P.C., Medical Office Building, North Iowa Medical Center, 910 Eisenhower Avenue, Mason City, Iowa 50401.

CONTINUING EDUCATION COURSES & CONFERENCES

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

October 20-21
October 26
October 28
November 1
November 6-9
November 10
November 10

Iowa Psychiatric Society
Radiation Therapy Seminar
The Neurology of Systemic Illness
Ophthalmology Clinical Conference
Cardiology Today
Otolaryngology Clinical Conference
Cardiac and Respiratory Disease Conference
Intensive Course in Pediatric Nutrition

November 16
Radiation Therapy Seminar
Postgraduate Conference on Surgery
November 17
lowa Chapter of the American College
of Surgeons
November 18
Cancer Teaching Day

November 28-29 Postgraduate Conference on Obstetrics and Gynecology

November 28-29 lowa Obstetrical and Gynecological Society

State Department of Health

VACCINATION & MALARIA PROPHYLAXIS FOR OVERSEAS TRAVEL

Health departments remain prepared to offer specific advice to physicians and international travelers on necessary immunizations and other precautions prior to overseas travel. Generally, requirements are specific by country and should be observed to ensure trouble free entry without delays. Physicians may obtain a booklet detailing specific requirements entitled, "Health Information for International Travel 1978" from the Center for Disease Control, Attention: Quarantine Division, Bureau of Epidemiology, Atlanta, Georgia 30333. Unfortunately, this booklet will become outdated soon after publication since requirements change for certain countries on a weekly basis depending on the status quo of the quarantinable diseases. Therefore, its use should be for general reference; specific questions may still be answered by health departments in the state, or by embassies and foreign consulate offices.

Some guidelines on the quarantinable diseases are reviewed for general information:

Cholera — The only indications for cholera vaccine are travel to and residence in countries with cholera. Nevertheless, many cholera-free countries may still require vaccination of all entering travelers. For persons anticipating travel to such countries who are to be vaccinated in the United States, a *single* dose of vaccine is sufficient to satisfy International Health Regulations. The risk to U. S. citizens is very low, particularly along the usual tourist itinerary. In summary, the traveler's best protection against cholera, as well

as against many other enteric diseases, is to avoid food and water that might be contaminated.

Yellow Fever — Yellow fever vaccine is a live, attenuated virus grown in chick embryos. For purposes of international travel, the yellow fever vaccines used must be approved by the World Health Organization and administered at an approved yellow fever vaccination center. In Iowa, these centers are located in Des Moines, Iowa City and Sioux City (see table). Some countries require yellow fever vaccination even if there is no yellow fever in the country of origin. All travelers should seek current information.

Small Pox — Vaccination is indicated only for travelers to countries which continue to require vaccination as a condition for entry. Vaccine should be administered before departing from the

TABLE 1
YELLOW FEVER VACCINATION CENTER

Lacatian	Center	Clinic Haurs (Subject to Change)	Fee	
Des Moines	Des Maines-Palk Caunty Health Department East First and Des Maines Sts. 50309 515/283-4244	By appointment Thurs., 2:30 p.m.	Yes	
lawa City	University Hospital Student Health Service 52240 319/356-2247	By Appaintment Wed., 10:00 a.m.	Yes	
Siaux City	Health Department City Health, P.O. Box 447 51102 712/279-6121	By appaintment	Yes	

For specific health information about international travel, contact the lawa State Department of Health, Area Code 515/281-5424.

United States. For purposes of validating an International Certificate of Vaccination, primary vaccinations must be inspected and the traveler revaccinated if the initial vaccination is not successful. Although inspection of revaccination is not required by international regulations, health workers are strongly encouraged to examine the revaccination site and again revaccinate the traveler if a major reaction has not occurred.

Certain other non-quarantinable diseases also should be considered in preparing for overseas travel. Travelers to tropical areas and developing countries who bypass ordinary tourist routes may be at a greater risk of acquiring hepatitis A. In this case, immune serum globin (ISG) is recommended and should be administered at a dosage of 0.02 ml/k of body weight. If travelers plan to stay 3 or more months in high risk areas, they should receive a single injection of ISG in a dose of 0.05 ml/k of body weight. For long term residence, prophylactic ISG should be repeated every 4-6 months at doses of 0.05 ml/k of body weight.

All travelers to areas where malaria transmission occurs should use prophylactic drugs. The

standard recommendation for adults over 50 kg is chlorquine phosphate 500 mg (300 mg base) orally once a week beginning one week prior to arrival, during the stay, and continuing 6 weeks after departure. Infants and children up to 50 kg in body weight should receive 5 mg (base)/kg body weight.

The risk of plague and typhus for ordinary travel is very low and rarely calls for immunization. Typhoid vaccine is of questionable efficacy; travelers should be cautioned to avoid questionable food and water.

Poliomyelitis is of some concern, therefore, susceptible adults entering an area where polio is common should complete primary immunizations with either IPV or TOPV. Anyone who has completed the primary TOPV series in the past should be given a single additional dose of TOPV when there is substantial risk of exposure to poliomyelitis due to travel. The actual need for this supplementary dose has not been established, but there is value in assuring protection against infection with wild polioviruses when exposure can reasonably be expected.

August 1978 Morbidity Report

	Aug.	1978	1977	Mant Ave Cons
	1978	1970 to		Mast Aug. Cases
Discours			ta	Reparted Fram
Disease	Tatal	Date	Date	These Caunties
Amebiasis	7	125	77	Baane
Chickenpox	15	5624	7364	Scattered
GI viral infection	218	13280	16380	Scattered
Giardiasis	4	15	NA	Emmett, Scott, Dallas
Hepatitis A	10	99	73	Scattered
Hepatitis B	10	60	90	Scattered
type unspecified	3	41	28	Dubuque, Scatt, Buena
				Vista
Herpes simplex	9	60	NA	Scattered
Impetiga	81	610	421	Scattered
Infectious mono.	54	733	726	Scattered
Influenza-like illness	162	39219	40485	Scattered
Meningacoccal				
meningitis	1	3	NA	Cherakee
Meningitis				
aseptic	9	15	12	Scottered
bacterial	7	42	12	Scattered
Pediculosis	20	359	243	Scottered
Pertussis	1	7	2	Muscatine
Pneumonia	192	1990	654	Scattered
Rabies in animals	11	89	86	Scattered
Rheumatic fever	1	28	NA	Webster
Ringworm, body	11	211	186	Scattered

	Aug.	1978	1977	Mast Aug. Cases
	1978	ta	to	Reported Fram
Diseose	Tatal	Date	Date	These Caunties
Rubella, (Germon				
Measles)	1	52	NA	Dubuque
Rubeola	1	53	4624	Dubuque
Salmonellosis	23	116	154	Scattered
Scabies	31	748	596	Scattered
Shigella	5	30	34	Des Moines, Linn
Streptacaccal inf.	351	6258	8990	Scattered
Tuberculasis				
tatal ill	7	104	69	Scatt, Mills, Palk, Linn, Warren, Allamakee, Buena Vista
bact. pos.	6	51	57	See abave
Venereal diseases:				
Ganorrhea	391	3386	3851	Scattered
P. & S. Syphilis	2	27	28	Webster, Guthrie
Syphilis—ather	14	147	NA	Scattered

Labaratary Virus Diagnasis Without Specified Clinical Syndrome: Eotan's agent—11; Scarlet fever—2; Racky Mountain spatted fever—1; ECHO 30, type Isolated—1; Coxsockie A—9, Isolated—1.

NA-information nat available

Educationally Speaking



by R. M. CAPLAN, M.D.

EXAMPLES OF LEARN-AS-YOU-GO

In a recent discussion with two Des Moinesarea physicians, I enjoyed learning their method for becoming up-to-date in particular areas.

Dr. Roy Overton has made himself unusually well-informed on water pollution simply by being steadfast to his commitment to give one hour weekly to studying that topic. Since he has kept at it for about five years, he has become remarkably expert and now receives invitations to speak to lay and professional groups on this topic. Dr. Overton reads, sometimes simply strolls with his camera alongside a stream or riverbank, sometimes engages in discussion with others — but mainly he has been resolute in devoting one hour per week to this topic. There are many areas available to all of us, in which we might grow especially competent and confident.

Another Des Moines family physician, Dr. Herbert Rosen, described to me his technique of choosing a topic that relates to some aspect of his practice and about which he feels need for help. Once he has chosen the topic, he tries to concentrate his reading and attendance at programs and courses until he either feels comfortable with his level of mastery or "until I've grown tired of it."

Dr. Caplan is Associate Dean for Continuing Medical Education at The University of Iowa College of Medicine.

IMS/AETNA ANNUAL REPORT

On November 15 the second annual report on the Professional Liability Insurance Program available to member physicians will be presented to the Medico-Legal Committee and other Society representatives of the Aetna Life and Casualty.

In either of these approaches the key is the discipline of choosing a study area and sticking with it, being selective in one's activities so that the goal, either special knowledge or competence on the one hand, or self-fulfillment on the other, stands a reasonable chance of being attained. Since both Drs. Overton and Rosen are in family practice, they necessarily deal with a huge number of topics. Perhaps some individuals, when faced with that breadth of terrain, would approach the task in a highly desultory fashion and get away with it. That is, they may maintain their state of being up-to-date in a great many areas simply by working a bit here and there as the ideas or opportunities cross their path. Those who can do it that way are likely far fewer than those who would profit by a more organized and steadfast approach. Choosing a special area to work on for a time doesn't preclude the opportunity to read or learn about other areas also, but it has the special advantage of helping to assure a more certain and high level competence in one particular area.

Reflect on your own method. Have you set any specific goal for your educational activity? If not, why not choose one and make a concerted effort to work on that? You might find that your continuing education offers you new challenge and excitement. And the satisfaction of having attained a specific goal is hard to beat.

This report will provide detailed information on the experience of the program. Official announcement will be made as to the anticipated administrative dividend. Premium levels for the third year will be revealed, these will become effective on February, 1979. Approximately 900 Society members are active in the program after two years. This is regarded as excellent participation.

Your malpractice insurance is no place to gamble



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About IOWA Physicians

NEW DOCTORS IN IOWA

Dr. Douglas C. Johnson has joined Drs. Lowell A. Luhman and Stanley W. Greenwald in their practice of obstetrics and gynecology in Iowa City. Dr. Johnson received the M.D. degree at U. of I. College of Medicine and completed his residency in obstetrics and gynecology at Washington University and Barnes Hospital in St. Louis, Missouri. . . . Dr. Dennis A. Weiss, who is associated with Dr. A. E. Mayner, Winthrop, began family practice at the Oelwein Medical Clinic in August. Dr. Weiss received the M.D. degree at U. of I. College of Medicine and served his internship and family practice residency at Methodist Medical Center of Central Illinois in Peoria. . . . Dr. Horace F. Martin has joined the Department of Pathology at Schoitz Memorial Hospital in Waterloo. Prior to locating in Waterloo, Dr. Martin was professor of biochemical pharmacology at Brown University and director of clinical pathology at Rhode Island Hospital. . . . Dr. Pe-Hsun Tung began practice of surgery at Washington Medical Clinic in July. A native of mainland China, Dr. Tung is a graduate of the National Defense Medical Center in Taipei and served five years as a military surgeon and two vears as a hospital staff surgeon before immigrating to the United States in 1973. He completed his American medical training and residency requirements at Grace Harper Hospital and Wayne State University Medical Center in Detroit, Michigan.

Dr. Timothy K. Daniels has joined the Family Health Center in Storm Lake. Dr. Daniels received the M.D. degree at U. of I. College of Medicine; interned at Ramsey Hospital in St. Paul, Minnesota; and served two years in the

public health service at Claremore, Oklahoma, Indian Hospital and two years in family practice residency at Broadlawns Hospital in Des Moines. . . . Dr. Kurt Vander Ploeg joined the staff at the Pella Medical Center in July. Dr. Vander Ploeg received the M.D. degree at U. of I. College of Medicine and completed his family practice residency at Iowa Lutheran Hospital in Des Moines. . . . Dr. Michael T. Berstler joined the Family Practice Clinic in DeWitt in July. A Fort Madison native, Dr. Berstler received the M.D. degree at the Kansas University Medical Center. . . . Dr. Gary S. Lerner has joined Dr. Stanley I. Levine in the practice of pediatrics at the Ottumwa Medical Clinic. Dr. Lerner received the M.D. degree at University of Missouri School of Medicine and recently completed his pediatric residency at Children's Mercy Hospital in Kansas City, Missouri. . . . Dr. Charles Smith, Jr. recently began family practice at the Muscatine Health Center. Dr. Smith received the M.D. degree at the University of North Carolina Medical School and completed his family practice residency at UNC where he was chief family practice resident at the Family Practice Medical Center in Chapel Hill, North Carolina. Dr. Smith also has an appointment to the teaching faculty in the Family Practice Department at U. of I. College of Medicine.

Dr. Drew Pellett recently joined Dr. Ralph Knudson in family practice in Decorah. Dr. Pellett received the M.D. degree at U. of I. College of Medicine and interned in Indianapolis, Indiana. . . . Dr. Robert F. Anderson has joined the staff at the Community Health Care Center in Davenport. Dr. Anderson received the M.D. degree at U. of I. College of Medicine and completed his pediatric residency at University Hospitals. . . . Dr. Jerry Van Es began family practice at Medical Associates in LeMars in July. Dr.

Van Es received the M.D. degree at U. of I. College of Medicine and completed his family practice residency at Sioux Falls, South Dakota. ... Dr. Paul H. Gordon has joined Drs. Jay Houlahan, John Baker and James Coddington in Mason City. Dr. Gordon received the M.D. degree at U. of I. College of Medicine and completed his family practice residency at Mercy Hospital in Mason City. . . . Dr. Juan Caceres and Raymundo V. Teheng recently joined the staff at the Gilfillan Clinic in Bloomfield. Both physicians specialize in obstetrics and gynecology and prior to locating in Bloomfield attended New York Lincoln Medical Center in New York. . . . Dr. William P. Jerome opened an internal medicine practice in Davenport in August. Dr. Jerome received the M.D. degree at U. of I. College of Medicine and completed his internship and residency in internal medicine at the Medical College of Wisconsin in Milwaukee.

Dr. Robert L. Friedman recently joined the Family Practice Center in Waterloo. Dr. Fried-

man received the M.D. degree at University of Pennsylvania Medical School in Philadelphia. Prior to locating in Waterloo, he was in family practice with the National Health Service in Frenchburg, Kentucky. . . . Dr. James C. Plamondon has joined Dr. James F. Dolezal in the practice of dermatology in Council Bluffs. A native of Dubuque, Dr. Plamondon received the M.D. degree at U. of I. College of Medicine; interned in Grand Rapids, Michigan; and completed his residency in dermatology at University Hospitals in Iowa City. . . . Dr. John M. Veitch has joined the Kersten Clinic in Fort Dodge. Dr. Veitch received the M.D. degree at the University of Minnesota Medical School and interned at Marion County General Hospital in Indianapolis, Indiana. Following three years in the Army, he completed his residency in orthopedic surgery at the University of New Mexico Medical School. . . . Dr. Maurice D. Huffman has joined the Family Health Clinic in Carroll. A native of Sac City, Dr. Huffman received the M.D. degree at U. of I. College of Medicine; interned and com-

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HEMPEL FINANCIAL CORPORATION 10880 Wilshire Blvd., Los Angeles, CA 90024 pleted his family practice residency at Mercy-St. Luke's Hospitals in Davenport. . . . Dr. Richard K. Reams has joined Medical Associates in New Hampton. A native of Plainfield, Dr. Reams received the M.D. degree at U. of I. College of Medicine. Prior to locating in New Hampton, Dr. Reams completed a tour of duty in the Navy.

Dr. Dennis Kuhlmann has joined the medical staff at Keokuk Area Hospital. A native of Cedar Falls, Iowa, Dr. Kuhlmann received the M.D. degree at U. of I. College of Medicine and interned at St. Luke's Hospital in Denver, Colorado. . . . Dr. Delos D. Hansen has joined Drs. Donald J. Heming, Eugene L. Kerns and Harold L. Mihm to practice obstetrics and gynecology in Davenport. A native of Hampton, Iowa, Dr. Hansen received the M.D. degree at U. of I. College of Medicine; interned in Phoenix, Arizona, and completed his residency in obstetrics and gynecology at University Hospitals. . . . Dr. Bruce L. Miller joined the Kersten Clinic in Fort Dodge in July. Dr. Miller received the M.D. degree at Harvard Medical School and completed his residency in general and thoracic surgery at Buffalo, New York. Prior to locating in Fort Dodge, Dr. Miller was in private practice in Attleboro, Massachusetts. . . . Dr. Robert J. Cak recently joined Surgical and Orthopaedic Associates in Waterloo. Dr. Cak received the M.D. degree at the Indiana University School of Medicine; and completed his postgraduate training at Western Pennsylvania Hospital in Pittsburgh and Cleveland Clinic in Cleveland, Ohio. For the past two years, Dr. Cak has been stationed at the Air Force Regional Hospital at Minot Air Force Base in South Dakota. Dr. Cak is a diplomate of the American Board of Surgery.

Dr. M. N. Fulton began practice of orthopedic surgery in Muscatine in August. Dr. Fulton received the M.D. degree at U. of I. College of Medicine; interned at Gunderson Clinic in La-Crosse, Wisconsin, and completed his orthopedic residency at University Hospitals in Iowa City. . . . Dr. Tareq Khatib, surgeon, has joined his brother, Dr. Osamah Khatib in medical practice in Dyersville. Prior to locating in Dyersville, Dr. Tareq Khatib was in private practice in Dixon, Illinois. . . . Dr. Dominador Garcia joined the

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in functional G.I. disorders*

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10 mg. capsules, 20 mg. tablets, 10 mg./5 ml. syrup, 10 mg./ml. injection

helps control abnormal motor activity with minimal anticholinergic side effects[†]

Demonstrated smooth muscle relaxant activity.

In this double-blind study, twenty patients having G.I. series and exhibiting spasm were randomly selected to receive either 2 cc. of Bentyl or sodium chloride intramuscularly. Ten minutes after the injection another radiograph was taken . . .

... Bentyl produced definite relaxation in 8 of 10 patients. The sodium chloride produced relaxation in only 3 of 10. No side effects occurred in either group of patients.



Pylorospasm has almost totally blocked passage of barium



Barium meal beginning to pass 10 minutes after intramuscular injection of 20 mg. Bentyl.

"The correlation of spasm relief and drug given was excellent."

*This drug has been classified "probably" effective in treating certain functional G.I. disorders.

†See Warnings, Precautions and Adverse Reactions.

See following page for prescribing information.

Reference: King, J.C. and Starkman, N.M.: Evaluation of an antispasmodic. Double-blind evaluation to control gastrointestinal spasms occurring during radiographic examination. A preliminary report. Western Med. 5:356-358, 1964.

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(dicyclomine hydrochloride USP)

Capsules, Tablets, Syrup, Injection AVAILABLE ONLY ON PRESCRIPTION.

Brief Summary INDICATIONS

FOR USE AS Adjunctive therapy in the treatment of peptic ulcer. IT SHOULD BE NOTEO AT THIS POINT IN TIME THAT THERE IS A LACK OF CONCURENCE AS TO THE VALUE OF ANTICHOLIN-ERGICS/ANTISPASMOOICS IN THE TREATMENT OF GASTRIC ULCER. IT HAS NOT BEEN SHOWN CONCLUSIVELY WHETHER ANTICHOLINERGIC/ANTISPASMOOIC ORUGS AIO IN THE HEALING OF A PEPTIC ULCER, DECREASE THE RATE OF RECURRENCES, OR PREVENT COMPULCATION.

Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FOA has classified the following indications as "probably" effective

ably" effective:

May also be useful in the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis, acute enterocolitis, and functional gastrointestinal disorders); and in neurogenic bowel disturbances (including the splenic flexure syndrome and neurogenic colon).

THESE FUNCTIONAL OISOROERS ARE OFTEN RE-LIEVED BY VARYING COMBINATIONS OF SEOATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORA-TION OF ENVIRONMENTAL FACTORS

For use in the treatment of infant colic (syrup).

Final classification of the less-than-effective indications requires further investigation.

CONTRAINOICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloro-duodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage; severe ulcerative colitis; toxic megacolon compli-cating ulcerative colitis; myasthenia gravis. WAPNINGS: In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Olarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy. Use with caution in patients with: autonomic neuropathy; hepatic or renal disease; ulcerative colitis—Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon, hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension; hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition

It should be noted that the use of anticholinergic/antispasmodic drugs in the treatment of gastric ulcer may produce a delay in gastric emptying time and may complicate such therapy (antral stasis). Oo not rely on the use of the drug in the presence of complication of billary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur. AOVERSE REACTIONS: Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia; urinary hesitancy and retention; blurred vision and tachycardia palpitations; mydriasis; cycloplegia; increased ocular tension; loss of taste; headache; nervousness; drowsiness; weakness; dizziness; insomnia; nausea; vomiting; impotence; suppression of lactation; constipation; bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis; urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating. With the injectable form there may be a temporary sensation ghtheadedness and occasionally local irritation. OOSAGE AND AOMINISTRATION: Oosage must be adjusted to individual patient's

Usual Dosage: Bentyl 10 mg capsule and syrup: Adults: 1 or 2 capsules or teaspoonful syrup three or four times daily. Children: 1 capsule or teaspoonful syrup three or four times daily. Children: 1 capsule or teaspoonful syrup three or four times daily. (May be diluted with equal volume of water.) Bentyl 20 mg. Adults: 1 tablet three or four times daily. Bentyl linjection Adults: 2 ml. (20 mg.) every four to six hours intramuscularly only. NOT FOR INTRAVENOUS USE. MAN-AGEMENT OF OVEROOSE. The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine* (bethanecol chloride USP) should be used.



Carroll Medical Center in August. Dr. Garcia, a native of the Philippines, completed his residency in surgery at Iowa Methodist Medical Center last year.

Dr. Harold C. Hallberg recently completed 25 years of medical practice in Oelwein. . . . Two U. of I. College of Medicine faculty members, Dr. John Kasick, director of respiratory therapy, and Dr. Geoffrey McLennan, assistant professor in Department of Internal Medicine, recently conducted a 3-hour session on "Management of Respiratory Failure" at Keokuk Area Hospital. The CME program is one of a series being organized by Dr. Anne Bonhaus, staff radiologist, at Keokuk Area Hospital. . . . Dr. Richard M. Caplan, associate dean for Continuing Medical Education at U. of I. College of Medicine, has been elected secretary-treasurer of the Society of Medical School Directors of Continuing Medical Education, and appointed to a three-year term on the educational advisory committee of the National Fund for Medical Education. . . . Dr. Werner Pelz, Charles City, was guest speaker at a recent meeting of Charles City Rotary Club. Dr. Pelz spoke on alcoholics and the costs of their affliction to society. . . . The State Department of Health recently announced the appointment of Dr. Clive R. Ayers, Atlantic, to the Birth Defects Institute Advisory Committee. . . . Dr. H. K. Merselis, Audubon physician for 32½ years, retired from active practice September 1. Dr. Merselis plans to spend his retirement years in Maui, Hawaii.

Dr. Paul Sosnouski, Ames, was guest speaker at recent meeting of the Iowa Chapter of the National Foundation for Lupus Erythematosus. . . . Dr. J. T. May, former superintendent of the Cherokee Mental Health Institute, has been named superintendent of the Mental Health Institute at Independence. Dr. May will replace **Dr. Selig Korson**, who retired in July. For the last two years, Dr. May has been associated with Veterans Hospital in North Little Rock, Arkansas. . . . Dr. John McKee has been appointed assistant professor of neurology at U. of I. College of Medicine. Dr. McKee received the M.D. degree at U. of I.; interned and completed his residency in neurology at University Hospitals where he was also a Fellow associate in neurology. . . . Dr.

Joseph F. Veverka, Prairie City, has been cer-

tified in the Specialty of Utilization Review and

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Quality Assurance by the American Board of Quality Assurance and Utilization Review Physicians, Inc. Dr. Veverka serves as chairman of the Medical Records Utilization Review Committee at Iowa Lutheran Hospital and the IMS Committee on Medical Practice in Health Facilities and Homes.

Dr. F. G. Dannenbring, Fort Dodge pediatrician, was guest speaker at a recent meeting of the Make Today Count Organization. Dr. Dannenbring's talk was entitled, "Terminally Ill Children — How Families Can Cope."

DEATHS

Dr. William J. Neuzil, 92, Cedar Rapids, died July 29 at a CR hospital. Dr. Neuzil received the M.D. degree at U. of I. College of Medicine in 1907; served two years at Soldiers Home in Marshalltown and completed his otolaryngology residency at North Chicago hospital. Dr. Neuzil located in Cedar Rapids in 1911 where he practiced until his retirement in 1970. He was a member of

Iowa Academy of Ophthalmology and Otolaryngology and life member of the Iowa Medical Society.

Dr. Addison W. Brown, 72, longtime Des Moines obstetrician and gynecologist, died August 9 at his summer home in Minnesota. Dr. Brown received the M.D. degree at U. of I. College of Medicine, and practiced obstetrics and gynecology in Des Moines from 1939 until 1973. A former president of the Iowa Division of the American Cancer Society, he lectured extensively on cancer recognition and control. In 1964, he received a citation from the American Cancer Society for his participation in cancer education programs. Dr. Brown was a founding member of the American College of Obstetrics and Gynecology and a World War II veteran.

Dr. Temple Miller, 73, died July 25 in Muscatine. Dr. Miller received the M.D. degree at the University of Indiana Medical School where he also completed his residency in anesthesiology. He located in Muscatine in 1936 and retired from active practice in 1966.



CLASSIFIED ADVERTISING RATE—\$1 per line, \$10 minimum per insertion. NO CHARGE TO MEMBERS OF IOWA MEDICAL SOCIETY. Copy deadline—10th of the month preceding publication.

FOR SALE—3-year-old medium green OB-GYN exam table with matching stool and utility table. Write or call Paulino T. Fong, M.D., 1241 8th Street, West Des Moines, Iowa 50265. Phone 515/223-1646.

EXCELLENT OPPORTUNITY—for a physician in Cedar Rapids, lowa. Assume practice of deceased solo practitioner of internal medicine. Office leased; laboratory and X-ray facilities close at hand. Excellent medical facilities in city. Write Trust Department, P.O. Box 1807, Cedar Rapids, lowa 52406.

OFFICE SPACE AVAILABLE — Share large medical office in ideal location. Convenient to major hospitals. \$400 per month. AVAILABLE NOW. Phone 515/244-8203.

PSYCHIATRIC RESIDENCY — Vacancies for (PG2 through PG4 only) positions starting January 1, 1979, for those who have regular lowa license or can obtain one by reciprocity or via FLEX. Prepare for a career in private practice, community clinics or hospital based psychiatry. Emphasis on close supervision of intensive individual and group psychotherapy, OPD, Children's Unit, Adolescent Unit. Neurology affiliation with University of lowa. The stipends are: 1st year, \$23,478; 2nd year, \$24,648; 3rd year, \$25,896. Intensity and diversity of training program appreciated best by personal visit. Contact T. B. McManus, M.D., Superintendent, Mental Health Institute, Cherokee, 1owa 51012. Equal opportunity employer. Call collect 712/225-2594.

RADIOLOGIST WANTED — Northeastern lowa college community with excellent life style for family living needs a radiologist to staff local hospital and one in a nearby community. Very good first year income potential and opportunity for growth. Either call collect, 319/352-4340 or write D. B. MacMillan, M.D., c/o Rohlf Clinic, Waverly, lowa 50677.

FAMILY PRACTICE OPPORTUNITY — Two board certified family physicians need third physician. New office connected to new hospital (250-beds) with all ancillary and specialized services available. Any interested physicians, please send curriculum vitae to Link, Chapman & Associates, Inc., 1515 West Truman Road, Independence, Missouri 64050, or call collect 816/836-8200 between 9 a.m. and 4:30 p.m.

EXECUTIVE/PROFESSIONAL OFFICE FOR LEASE — Prestigious West Grand Avenue location. 3,000 sq. ft. or less available. Ample convenient parking. For further information contact Sev Johnson, Chamberlain, Kirk & Cline, Inc., 507 Ninth Street, Des Moines, Iowa 50309. Phone: 258-9501 or 955-6537.

FOR RENT—DOCTOR'S OFFICE SPACE IN OTTUMWA, 10WA—4 exam rooms, private office with lovely carpet and paneling has separate entrance, nurse's lab, receptionist's room, two restrooms, paneled waiting room and plenty of parking space. Can also be converted to a dentist's office. For further information write or call Gust Soteropulos, 345 East Alta Vista, Ottumwa, Iowa 52501. Phone 515/684-5682

OFFICE SPACE AVAILABLE — Physician to share 1,500 square feet in completely equipped office. Adequate for surgical specialties or family practice. Prime location — Davenport, lowa. Available immediately. For more information call 319/322-5916.

LIST YOUR WANTS

GENERAL SURGEON WANTED — Ideal location in brand new, all brick building next to two extremely busy GP's engaged in Family/ Occupational Medicine. Outstanding opportunity for energetic surgeon. Call or write Dr. William Reinwasser, 2353 S. E. 14th Street, Des Moines, Iowa. 515/244-4141.

This is a unique, and challenging opportunity for a FAMILY PRACTITIONER to develop and expand a central department of Family Practice with peripheral satellites for a multispecialty group in North Iowa. Strong support from the other specialties including Internal Medicine, Surgery, Ob/Gyn, Allergy, and Dermatology is available. Attractive community of 32,000 serving needs of 200,000 area citizens. Convenient to Minneapolis, Mayo Clinic, and Des Moines via 1-35. Eight miles to Clear Lake, "Iowa's Vacation Capitol." New office building-hospital complex (August, 1978). Second hospital in community newly remodeled and expanded. Teaching opportunities. Partnership after one year. Salary generous. Vacation and Study Time. Pension Plan program. For more information, please mail your curriculum or call collect AC 515-423-4120, and ask for the "Info Pack" from Park Clinic, 116 N. Washington Ave., Mason City, Iowa 50401.

(Additional Wants on page 380)

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Medical Assistants



by BETTY EHLERT, CMA-A

WATERLOO SEMINAR

A day-long seminar will be offered Saturday, November 4, at St. Francis Hospital in Waterloo. The program is sponsored by the Waterloo District, American Association of Medical Assistants, State of Iowa. It is open to all persons working under the supervision of a physician including assistants, nurses, laboratory technicians, office managers, medical secretaries, etc.

A main purpose of the seminar will be to introduce those attending to the educational opportunities available through the American Association of Medical Assistants. Theme of the program will be "With You in Mind."

The program will be as follows:

8:00 a.m.

Registration

9:00 a.m.

"A Slip of the Hand"

Hester Hursh, M.D., Jahn Deere, Waterlaa

Care af Hand Injuries

10:30 a.m. "Infant Care and Care af Children"
Luke Tan, M.D., Pediatrician, Waterlao

11:45 a.m. Lunchean

1:00 p.m. Human Relations and Caunseling Flaralyn Groff Flary, M.D., Waterlaa

2:30 p.m. Business Management and Administrative Pracedures

Angela Fuller, Business Manager

Assaciated Medical Arts

3:30 p.m. Shart Quiz

Pre-registration is encouraged. Checks should be made payable to Black Hawk Chapter AAMA and sent to Marie Hruska, 6325 North Raymond Road, Waterloo 50701. Member pre-registration is \$10.50; member registration at the door will be \$12.50. Registration for non-members is \$15. Application has been made for continuing education units.

Location of the seminar is Room 112, St. Francis Hospital, 3421 West Ninth Street, Waterloo.

WANT ADS (Continued from page 379)

1DEAL PRACTICE LOCATION—for medical or surgical practitioner in new brick clinic building next to two extremely busy GP's. Will finish to suit. Office located in professionally uncrowded southeast side of Des Moines with booming residential growth. Excellent access and parking on high traffic street. Contact William L. Reinwasser, D.O., 2353 S. E. 14th Street, Des Moines, Iowa 50320. Phone 515/244-4141.

PSYCHIATRIST—Board Eligible/Board Certified needed to join an expanding private clinic to work with another practitioner, clinical psychologist and several psychiatric social workers. General psychiatric practice plus aspects of pain control. Practice in an Iowa metropolitan area of approximately 100,000 population. Salary guaranteed \$3,000/month minimum or percentage of gross billing. Benefits and malpractice insurance. Partnership offer after one year. Call 319-235-0099 or write Suite 537, Black Bldg., Waterloo, Iowa 50703.

TWO DOCTOR FAMILY PRACTICE CLINIC — with growing practice and two established satellite clinics seeking young energetic doctor. Located in a town of 10,000 population in central Iowa with well-equipped modern

hospital, modern ambulance service, and easy access to two VA hospitals and State University Hospitals and Clinics. Send resume to: WILTFANG-PAULSON CLINIC, 1129 Spencer Street, Grinnell, Iowa 50112. For further information call: 515/236-3163.

SIOUX FALLS, SOUTH DAKOTA—Family Practice Residency is seeking a full time assistant director. Position open immediately. Program size presently 28 residents enlarging to 36. A strong affiliation exists with the Univ. of So. Dakota School of Medicine and appointments to the faculty are available. Board certification required and experience in Family Practice desirable. Salary negotiable. Send resume to L. J. Sweeney, M.D. or Howard Hoody, M.D., 1800 So. Summit Ave., Sioux Falls, SD 57105. 605/339-1783. Equal opportunity/affirmative action employer.

MEDICAL DIRECTOR, CLINICAL DIRECTOR, INDUSTRIAL HEALTH and other medical opportunities available on a national basis. Salaries commensurate with experience. Top fringe benefits. Relocation expenses, interview expenses and agency fees paid by employers. Let us help you relocate to the area of your choice. Capital Personnel Service, 814 Central National Bank Bldg., Des Moines, Iowa 50309. Phone 515-283-2545.

President's Page

For the second year we are trying something a bit different with this November issue of the IMS JOURNAL. This month, as we did in 1977, we have compiled the November JOURNAL with the thought that much of its content may be of interest and benefit to your patients.

So, member physician, we invite and urge you to read the following pages to your complete satisfaction; then, if you will, place the JOURNAL in your reception area for further reading by those who may be interested.

We think many patients (and their relatives) may find the articles informative. This effort by us and by you may convey an impression of what your Iowa Medical Society does, at least what it does in the sense of providing information to its member physicians.

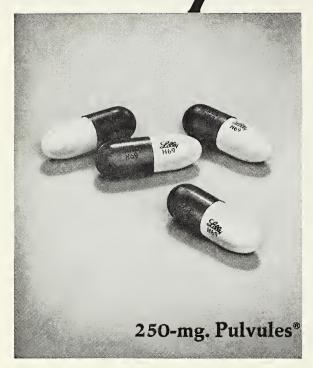


To those patients and relatives who chance to read this particular page, may I speak for your doctor and his approximately 2,700 physician colleagues in the Iowa Medical Society, and pledge our genuine interest in your good health. We urge you to pursue a lifestyle that fosters good health. We likewise urge you to contact your physician when a problem or concern presents itself.

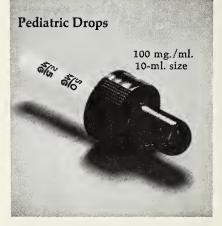
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IOWA Medical Miscellany

IMS PHYSICIANS' PLACEMENT . . . A recent updating of the IMS PP listings shows a decrease in requests for assistance in locating physicians. The previous (1977) list of Iowa communities seeking solo practitioners totalled 68; the new and updated list has only 36 communities recruiting through the IMS Placement Service. The reasons for this are subject to conjecture, e.g., many communities previously listed may have secured medical coverage; some smaller towns on the list may have accepted the fact that the larger city nearest them will have to furnish their needs. Also the new IMS list of established physicians' offices and clinics seeking family practice associates has 44 names on it, compared to 61 previously.

NEW CORPORATE SEAL . . . A newly designed Iowa Medical Society corporate seal has been approved by the Board of Trustees. It will be used as appropriate and necessary on various of the Society's documents. This new seal is shown on the cover.

PAST PRESIDENT HONORED . . . IMS Past President J. H. Sunderbruch, M.D., was cited recently by Assumption High School in Davenport for his long service and support. The school's newly renovated auditorium has been named in honor of Dr. Sunderbruch.

EXPAND SPECIALTY SERVICES . . . An expanded program of administrative and clerical services is now available to Iowa medical specialty groups. Services of this type have been provided by the Society in recent years with the intent now of increasing the assistance to any interested medical specialty group.

MEET WITH COMMISSIONER... The IMS Board of Trustees met October 18 with Social Services Commissioner Victor Preisser and Elmer Smith, M.D., the Department's medical consultant, to review the Iowa Medicaid program and other matters of mutual interest.

ORGAN TRANSPLANT COMMITTEE . . . A November 1 meeting of the IMS committee is scheduled to review transplantation progress and developments in the state during 1978. Attention is directed to page 402 for a status report on the renal transplant program.

MATERNAL AND CHILD HEALTH . . . The IMS M&CH committee met October 12 to consider a recommendation from the State Department of Health that Iowa physicians be urged to audit the immunization records of preschool children to schedule the administration of appropriate vaccinations. This is already done in many instances.

MORE ON MANPOWER The number of Iowa family practice residents in training this fall is 159. This postgraduate training is now going on at 9 sites. New FP residency programs are active in Waterloo (with three hospitals active) and at Des Moines General Hospital. Of the 114 doctors who have participated in the FP residency training network since it began in 1974, more than half are practicing in Iowa. A good percentage of these physicians are in communities under 15,000 population.

IMS/AETNA ANNUAL REPORT . . . Good news is expected when the second annual report on the IMS/Aetna Professional Liability Insurance Program is presented to the IMS Medico-Legal Committee on November 15. Indications are that a 14% administrative dividend will be confirmed. See page 399 for more comments on professional liability.

PHYSICIAN EXTENDERS . . . The IMS Committee on Delivery of Health Services conferred October 26 on developments relating to physician's assistants, family nurse practitioners and other physician extenders. Attention was given to policy established in this area by the 1978 IMS House of Delegates.

(Please turn to page 394)

A Special Report

Brain Death and the Law

JOHN T. BAKODY, M.D.

Des Moines, Iowa

IN THE BELIEF it is important for physicians, paramedical personnel and the general public to improve their understanding and acceptance of brain death, this article is offered.

Traditionally, death is declared when the heart stops. In legal terms, this is described as irreversible cessation of spontaneous respiratory and circulatory functions. Neurosurgeons, since the early experiences of Sir William Macewen, Harvev Cushing, et al, have witnessed many times the deaths of patients resulting from an irremediable intracranial condition where respiration ceased but the heart continued to beat independently for a time. Over the years, other medical states have been observed from which no recovery has occurred. These conditions involved the brain, such as severe injury or bleeding from whatever cause. There came to be recognized cases where the patient always died regardless of treatment. There was no survival. An additional element was added to the traditional definition of

In attending a patient with serious intracranial changes, usually due to acute increases in intracranial pressure from cerebral injury, hemorrhage, infarction or infection, the physician analyzes the patient's condition wishing (1) to determine the nature of the problem and (2) to plan the appropriate treatment. The physician accepts

his obligation to preserve life, and immediately applies all available resources to care for such patients. When patients are severely distressed then life support systems, including a respirator, may be needed. Remediable intracranial conditions are treated by surgical and/or medical measures, and fortunately many such patients are able to be helped to recovery.

Nonetheless, despite every effort, some patients continue to show failure in neural functions. Such can aptly be termed rostro-caudal deterioration of brain functions. Survival is threatened.

CESSATION OF BRAIN FUNCTION

At some point, even with artificial support of respiration, the brain may be unable to function due to inability of the bodily circulation to maintain intracranial perfusion or vascular irrigation of the brain. The effects of zero brain perfusion produce brain death. There is no possibility of survival.

The process of death in such individuals follows a sequence of respiratory failure, followed later by heart stoppage. We recognized that in brain stem failure, paralysis of breathing took place first, but that the heart, an organ with autonomous contractile ability, could continue beating even though the situation was hopeless and recovery could not take place. (This sequence, for example, was noted in the assassination death of Abraham Lincoln, as reported by Doctor Milton H. Shutes: "The last breath was finally drawn. . . . Following which . . . Doctor Barnes' finger was over the carotid artery, Doctor Leale's finger was on the right wrist pulse and Doctor Taft's hand was over the cardium when that great heart made its final

contraction . . . and so passed from the earth this

great man to live for the ages.")10

In the past two decades, events have transpired to force a re-examination of the traditional determination of death. As technology has advanced, improved medical maneuvers to support respiration and circulation have become available. Thus, even though there may be no hope for recovery in a particular case, the heart and respiration can be supported artificially.

IN THE IOWA CODE

It was under these circumstances the Iowa General Assembly made a definition of brain death. It reads in Section 208: "'Death' means the condition determined by the following standard: A person will be considered dead if in the announced opinion of a physician, based on ordinary standards of medical practice, that person has experienced an irreversible cessation of spontaneous respiratory and circulatory functions. In the event that artificial means of support preclude a determination that these functions have ceased, a person will be considered dead if in the announced opinion of two physicians, based on ordinary standards of medical practice, that person has experienced an irreversible cessation of spontaneous brain functions. . . . "

Since death is a process and not a single event, it is important to understand that not all tissues die at the same moment. Another item in the concept of death is that while organ death, as loss of kidney or liver function for example, *leads* to death, death of the brain *is* the death of that individual. ¹⁶ If we accept as "inescapable the logic of the concept," ¹⁵ that when the brain is dead the individual is dead, then we must examine our ability as physicians to make this determination or

diagnosis.

The physician's traditional but unenviable role in determining death should not be challenged just because the definition of death has been expanded to include inability of the brain to survive or function. These determinations are medical matters based on examination of the patient using ordinary standards of medical practice. Legal assistance is not needed and should be resisted. Legal regulations and rules provide no substitute for medical judgment . . . "the law can never replace or allow for the many factors involved in sound clinical judgment." ¹¹

During a panel discussion of matters concerning brain death in 1976,8 in an effort to coordinate the varying views, one member spoke of the medical thread, the ethical fabric and the legal cloak. It was noted, perhaps wryly, that the cloak can conceal as well as reveal. The medical thread runs through the fabric and the cloak. We physicians should not yield: in brain death determinations medical judgment is the sine qua non, in full compliance with ethical considerations and acknowledgement of society's desires, as represented in the law. Physicians should be wary of seeking or accepting legislative definitions, lest we complicate what we wish to simplify.

DETERMINATION OF BRAIN DEATH

There are at least two situations where a determination of brain death is required.

(1) Where the patient has no evidence of brain life; where there is not hypothermia; where there is not endogenous or exogenous intoxication; where there is not a correctable condition; and where respiration and circulation are being artificially maintained. In such a hopeless state, it is a useless expenditure of time, professional and nursing effort, and money to prolong the support systems in addition to extending the bedside vigil and sorrow of the next of kin.

Hypothermia means a low body temperature. When the body temperature falls below 32.2 degrees centigrade, bodily processes slow down and there occurs slowing of respiration and heart action. At an extremely low body temperature the electroencephalogram (EEG) has been reported

(Please turn to page 395)

Interest in brain death has been significant recently with a new lowa law and with attention focused on the Matthew Schrier case. Presented here is a thoughtful medical discussion of the subject by a well-qualified physician. The topic needs broad understanding.

MEDICAL MISCELLANY

(Continued from page 391)

CHILD'S ACTIVITY GUIDE . . . A weekly diary-type form on which children and/or their parents may record TV watched and other activity has been developed by the Iowa State Education Association, in cooperation with the Iowa Medical Society and several other organizations. A copy of the Activity Guide was mailed to member physicians with the October IMS UPDATE. The Guide is available in quantities of 100 (for \$1) to provide to patients and their families. Requests should be made of the IMS.

CME MATTERS . . . Regulations applicable to the new Iowa law requiring (1) continuing education activity of physicians as a condition of licensure, and (2) increased disciplinary responsibilities of the State Board of Medical Examiners, were reviewed by the IMS Committee on Medical Education and Hospitals at a meeting October 11.

IMS RE-ORGANIZATION... Deliberations of an ad hoc committee to study the organizational structure of the Iowa Medical Society continue. Recommendations are being considered which relate to revamping the membership and voting privileges of the Board of Trustees and also reconstituting the geographical boundaries of the councilor districts. All recommendations are subject to presentation to and action by the IMS House of Delegates.

INTERIM SUCCESSOR... The IMS Board of Trustees has requested James F. Bishop, M.D., to complete the term of A. J. Havlik, M.D., Tama, who resigned as a Society trustee for health reasons. Dr. Bishop is a past president and a past board chairman. He will serve until the House of Delegates elects a new trustee in April, 1979.

CHAMPUS INFO... A new claim form (Form 500) to be used by physicians providing services under the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) is available for immediate use. Supplies of the form may be obtained from CHAMPUS, Box 7927, Madison, Wisconsin 53707. The existing form (Form 1863-2) is to be phased out over the next several months and will not be accepted after 1/31/79.

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"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis. Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

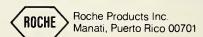
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCI) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

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Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCI, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



BRAIN DEATH AND THE LAW

(Continued from page 393)

as flat, or isoelectric, on occasion. This has been named electrocerebral silence (ECS). In drug intoxication, and especially from barbiturates, the respiration and cardiac activity slow and here again the EEG has been reported as flat or isoelectric, on occasion.

(2) It has been shown that a donor organ, obtained while the heart is still beating and perfusing it, has the best chance for survival in the recipient. If the subject is considered to be suitable and the surviving next of kin is agreeable to organ donation, then the availability of the declared brain dead subject provides the best chance for survival of the transplanted organ. Artificial support of the brain dead individual allows optimum harvesting of organs for human transplantation.

Where the primary condition is irremediable, recovery impossible and brain death present, a time has arrived when with clear conscience everyone can agree to discontinue the artificial support systems.² It is the physician's responsibility to determine the time of death. Termination of the support systems is usually carried out in an atmosphere of understanding with the next of kin.

EXAMINATION OF TERMS

Since the diagnosis of brain death requires the determination of irreversible cessation of spontaneous brain function, let us first examine some of the terms, even though the explanations may be elementary.

The term brain includes the entire brain and not just the cerebral hemispheres. Confusion arises here because in our loose use of medical terms, the brain and the cerebrum are often equated. Many have used the terms brain death and cerebral death interchangeably. I see no medical harm, but since there can be technical confusion perhaps it would be better to choose the more inclusive brain death designation. We are after all describing death of the entire brain, with loss of cerebral hemispheral and brain stem functions and not just one part.

The brain, throughout the verebrate series of animals (including man), is derived from the forebrain, midbrain and hindbrain; these primary divisions are variously modified in the separate animal phyla and species. In man, the forebrain becomes the elaborate cerebral hemispheres, the diencephalon and striatal complex. The midbrain remains a rostral part of the brain stem and serves as a center for visual and auditory reflexes as well as eye movements. The hindbrain gives rise to the pons, medulla oblongata and the cerebellum. The midbrain, pons and medulla oblongata form the brain stem, wherein vital functions reside. All that characterizes the human resides in the cerebral hemispheres: the states of feeling, comprehension and intellectual activity. These represent the emotional and cognitive aspects of the human existence which must be activated by lower neural pathways while the organism is maintained by spontaneous respiration. The arousal mechanism is represented by the ascending reticular activating substance (ARAS) present in the brain stem; spontaneous respirations are controlled by neurons in the lower brain

The spinal cord is a segmental organ which is capable of reflexly responding to external stimuli; even when separated from the brain. After brain death the spinal cord reflexes can persist. The segmental and intersegmental reflexes of the isolated spinal cord persevere even though the brain itself is dead. The spinal cord is neither enclosed in the same rigid bony box of the skull, nor does it receive the same blood supply. Hence, it is that the brain can be dead while the perfused spinal cord continues to show reflex activity.

These are the reasons that the brain dead individual may exhibit withdrawal of extremities from painful stimulation due to reflex muscle stretch activity. As a matter of fact, the longer that artificial support systems are maintained, the more the reflex activity can increase just as spinal reflex activity may progressively increase following recovery from spinal shock after a complete spinal cord injury. However, voluntary extremity movement is never seen in the brain dead.

The criteria used to determine brain death have been structured by several groups in the past few years. Perhaps the first formal statement was embodied in the Harvard Criteria of 1968. Universities such as Cornell, Minnesota, Iowa (and others), subsequently listed their requirements. Additional reports came from a Collaborative Study of the National Institute of Neurological and Communicative Diseases and Stroke; the Inter-Agency Committee representing neurosurgeons, neurologists, neuropathologists and elec-

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troencephalographers; and the American Society of Electroencephalography as well as official pronouncements from Japan, Sweden and Great Britain. There are other groups which have established criteria as well.

OPERATIONAL CRITERIA

Although there is agreement as to what constitutes brain death, the operational criteria may vary from country to country and from institution to institution. All agree that in brain death, there is absence of cerebral blood flow persisting for an arbitrary time, such as 15 minutes. The other criteria employed are indirect operational measurements to determine if there is clinical viability of the brain. Coma and apnea for at least 15 minutes are the basic prerequisites for the diagnosis of brain death. Coma is defined as lack of spontaneous behavior (volitional movement, response to command, phonation, etc.), or purposeful response to external stimulation. Coma has also been called cerebral unresponsivity.

Coma (if not due to hypothermia, drug or metabolic intoxication) results from bilateral cerebral hemispheral nonreactivity (seen in cortical laminar necrosis from anoxic states), or brain stem dysfunction (where the ARAS no longer produces arousal) or both. The Harvard Criteria require 24 hours of coma; the Cornell Criteria (Memorial Hospital) require 12 hours of coma; while the British Criteria do not demand any specific length of time.³

Apnea is the absence of spontaneous respiration. The Collaborative Study defines apnea operationally as absence of spontaneous respiration for at least 15 minutes. The failure of spontaneous respiration results from paralysis of the respiratory center in the medulla oblongata. One of the tests for apnea is removal of the patient from the respirator for periods of time varying from 3 to 10 minutes. Some groups recommend such a measurement; others discount its value.

ADDITIONAL CRITERIA

In addition to the items of cerebral unresponsivity and apnea for at least 15 minutes, most lists

of criteria require absence of cephalic reflexes and especially the finding of a pupillary state where there is no reaction of the pupils to light and the pupils are dilated. The findings in the Collaborative Study suggests that the pupils need not always be dilated but must be fixed (no reaction to light). Additional cephalic reflexes include the eye movement response to head movements (oculo-cephalic or Doll's eye) and the blink response to corneal stimulation. These cephalic reflexes must be absent for the diagnosis of brain death.

Walker¹⁷ lists criteria he believes should be present for at least 30 minutes to 6 hours after cerebral insult: (1) cerebral unresponsivity, (2) apnea, (3) absence cephalic reflexes (except vestibular), dilated pupils, (4) electrocerebral silence (ECS) and (5) a confirmatory test (angiography, bolus curves, echoencephalography and retinoscopy for sledging) indicating the absence of cerebral blood flow for 30 minutes. The confirmatory test is used when the first four items are imprecisely met.

The EEG must be isoelectric or flat in most criteria lists. The Ad Hoc Committee of The American Society of Electroencephalography had 2,650 survey replies from their members and concluded that finding coma, apnea and ECS was 100% confirmatory of brain death. The British do not believe that an EEG examination is an absolute requirement, nor does the Minnesota study.

The EEG is a measurement of the brain's electrical discharges. These potentials are collected by electrodes placed in or on the scalp and then amplified in the order of one million times. An ink writer is activated to record on a moving roll of paper. We then can analyze this graph in terms of frequency, amplitude and wave-forms. A living human brain produces an EEG while a dead brain produces a flat or isoelectric record known as ECS. This then is the basis for the use of the EEG to help determine brain death.

The usual EEG laboratory is electrically shielded and extra efforts are employed to filter extraneous electrical activity which might otherwise interfere with the record. The scalp electrodes are positioned by a human technician and the record is interpreted by a human electroencephalographer. The circumstances when an EEG is obtained on a patient suspected of brain death are less controlled. A portable EEG machine is wheeled into a busy intensive care area (ICU) where many electronic monitors, motor

driven respirators, etc., are operating. Amidst the bustle of patient care, scalp electrodes are applied and the recording obtained. Even though securing the EEG is less than ideal, much credence is placed on this measurement in most published criteria. Because of the importance given to this EEG examination and ECS, it is needful to analyze and evaluate this modality.

LEGAL IMPRESSIONS

Attorneys and courts appear to be more impressed by what they consider objective evidence as opposed to medical clinical data. Let us examine this objective test.

- (1) The EEG is administered by a human technician and interpreted by a human at least two highly subjective items in this one objective examination.
- (2) Interpretation of the EEG obtained in less than ideal circumstances is most difficult.
- (3) ECS has been recorded in brain alive patients in deep coma with hypothermia and/or drug toxicity.
- (4) It is reported that electrical activity can be measured from inanimate objects. 12
- (5) EEG activity can persist for a time after the clinical determination of brain death is made or at least my personal experience draws me to this conclusion. It is as though residual electrical activity persists in the brain, even after cessation of function.

In my own experience finding a patient with dilated fixed pupils, apnea and cerebral unresponsivity, all lasting over 15 minutes, without hypothermia or toxic encephalopathy and without an intracranial condition which can be rapidly remedied, always ends in death, regardless of the use of artificial support systems and whether ECS was recorded or not. However, Sweet points out that, "the EEG adds graphic confirmatory evidence of death." ¹⁵

Intracranial pressure can now be measured, thus allowing the physician to calculate the cerebral perfusion pressure (CPP). When the CPP remains zero for several minutes, there can be no brain viability. This measurement along with cerebral unresponsivity, apnea and absent cephalic reflexes substantiates the diagnosis of brain death, and no other validating data, such as ECS should be needed.

Ancillary studies to confirm brain death, which have produced inconsistent results for the most part, include cerebral angiography, isotope angiography, electroretinography, rhenoenceph-

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alography and brain biopsy, along with others.

There is a climate of general public uneasiness about brain death, partly engendered by sensational fiction and inaccurate reporting. In 1975, the case of Karen Ann Quinlan was reported in the news media and brain death became confused in the reporting with Karen's chronic-vegetative state. At no time was Karen brain dead despite some media reports to the contrary, therefore it is important to differentiate between irreversible coma and brain death.

PUBLIC REACTION

Then, in Polk County, Iowa, in the summer of 1978, there occurred the Schrier case, a two and one-half year old boy allegedly injured on June 28 and declared brain dead on July 5, according to the Iowa Code, Section 208, which had become law on January 1, 1978. A court hearing regarding custody of the injured boy was held, and a court order forbidding removal of the support measures was issued. Despite continued artificial support, including cardiac resuscitative efforts, the heart did stop spontaneously about 45 days after brain death had been declared. The cost of this continued support after brain death was around \$33,000. Following an autopsy, the medical examiner was quoted in the newspaper as finding the brain "had deteriorated quite severely."

In reporting on this case, even after brain death was declared, the reporters and commentators incorrectly compared this to the Quinlan case, spoke of the use of the *life* support systems in one legally dead, and repeatedly mentioned the Iowa Brain Wave Law, although brain wave is not mentioned in the legal definition defining brain death in the Iowa statute. Incidentally, a comprehensive account of the Schrier case was authored by editorial writer Ron Jensen in the DES MOINES SUNDAY REGISTER for August 27, 1978, on page 3B. Such a report does show that reporting can be responsible and factual, but it is difficult for one such article to offset the myriad inaccuracies already circulated.

Among the reasons for opposition to the concept of brain death are: (1) inadequate understanding or misinformation, (2) general distrust of doctors, (3) fear of being buried alive, (4) un-

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willingness of the next of kin to abandon hope or forsake denial of death's inevitability, (5) legal intervention; for example, if a client is charged with causing the injury of the victim, then the attorney may wish to prolong the artificial support systems in order to postpone the indictment, (6) legal intervention to prolong the artificial support since the necrotic respirator brain may not reveal the effects of an indictable injury, and (7) desire of the medical attendants not to become involved in criminal court actions or to assume liability for medical actions which may be challenged.

CONCLUSION

When coma and apnea persist for more than 15 minutes in patients with an uncorrectable intracranial problem not due to or complicated by hypothermia, or endogenous or exogenous intoxication, that individual is very likely brain dead. When we add to this cerebral unresponsivity and apnea, the absence of cephalic reflexes and an

isoelectric EEG there can be no doubt. Additional or substitutional criteria may be added or deleted as circumstances or times dictate. No doubt, in the future there will be developed an easier way to determine absence of cerebral blood flow, which may supplant the operational criteria now in use. Until that time, the criteria of (1) coma, (2) apnea, (3) absent cephalic reflexes, (4) isoelectric EEG, and (5) in the absence of hypothermia, drug or metabolic intoxication plus an observational period of at least 15 minutes applied to a patient with an uncorrectable intracranial condition, indubitably signal brain death; nor is this to say that other criteria better suited to this specific purpose in the opinion of the attending physician cannot be added to or substituted for the above named criteria.

The general public, including redoubtable skeptics, must be convinced that before the diagnosis of brain death is made, there not be missed a remediable condition. If the criteria and qualifications listed in the conclusion of this essay be followed, there will not result an error in the diagnosis of brain death.

REFERENCES

The references noted in this paper are available either from the author or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

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The Malpractice Crisis Is Over!

DARREL CHAPMAN

Des Moines, Iowa

An ever vigilant eye is being kept on the professional liability scene. The availability of this essential insurance coverage has improved with over 900 physicians now participating in the IMS/Aetna Program. The current climate is summarized here.

Is THE MALPRACTICE crisis over? Has everything returned to normal? What is normal? Normal when? The best we can do is examine the present situation and see what it reveals.

The tremendous number of claims and lawsuits filed back in the early 1970's has leveled off or declined. But they probably will never fall below the level prior to "the crisis." We have a public that is more knowledgeable and sophisticated on health care matters, and it will not let this happen. The central issue prompting most claims today is the quality of care. The 1978 health care consumer is wary of a poor result.

At one time the frequency of professional liability claims was reported to be increasing as much as 20% annually. A peak in claims against Aetna Life and Casualty insureds was reached in mid-1976. The 1977 figures show a dramatic reduction. This may be either a lull or an indication of a positive downward and stablizing trend. Only time will tell. We will attempt here to examine some of the reasons for this trend. But with a leveling off in claim frequency, there is corresponding not-so-good news. The decline in claim volume has been offset by an increase in the se-

verity of losses, compounded by the problem of inflation.

Claim costs have risen rapidly. The countrywide average jury award of \$62,000 in 1965 increased to \$350,000 by 1975. In this vein, everyone interested in professional liability is concerned about the growing number of million dollar awards. Through 1977 there had been at least 28 individual jury verdicts of \$1 million or more resulting from malpractice actions. (Source — Jury Verdict Research). From 1972 to 1977 the average professional liability verdict against Aetna Life and Casualty insured increased 370%!

IOWA SITUATION

In examining and reviewing the Iowa situation of recent years, there has been no crisis in frequency or severity of claims, or even in availability of coverage when compared to many other areas of the country. Some medical specialty areas did experience an availability problem, particularly related to the excess or umbrella type of coverage. The national dilemma had a rippling effect which had some impact on Iowa in such areas as premium cost and excess limits. The major insurance carriers had to make some difficult decisions about their future activity. Most of the existing and principal writers stayed active in Iowa in view of the historically favorable climate.

The near-crisis in Iowa declined noticeably in 1975 with the passage of House File 803. This legislation contained six tort reform measures which demonstrated to the public, to the health care providers, to the legal profession, and to the insurance industry the interest in and concern over the situation among Iowa lawmakers. The enactment of this proposal has been cited by various insurance representatives as a primary reason for their continued presence in the state.

Another more recent law many physicians may be unaware of, at least unaware of its relationship

Mr. Chapman is the account supervisor for the 1MS/Aetna Professional Liability Insurance Program.

to professional liability, is Senate File 312, passed by the 67th General Assembly. This law requires all insurance companies who write professional liability for certain professional and occupational licensees (including physicians) to report claim information to the State Insurance Commissioner for all claims occurring on or after January 1, 1978.

FAMILY PRACTICE EMPHASIS

The currently favorable medical liability situation in Iowa would appear to be the result of continued emphasis on the importance of the family practice physician, and the apparent generally good cooperation among physicians in specialty areas. Many people, when shuffled from doctor to doctor in an age of specialization, get lost in the system and come to think of themselves as charts on the door and not as people. The need for physicians to address this concern is obvious. More and more demands are placed on the physician. Patients insist on cures, when they fail or when the care is lacking open concern, a problem can arise.

It is gratifying to see Iowa as a leader in the current development of family practice physicians. This is illustrated by the nine family practice residency programs active in the state. With the potential for physician population growth through these programs, the increased level of family practitioners (approximately 50% of the doctor population) should help to enhance the critical area of patient rapport. The importance of spending adequate time with a patient is strongly supported by the insurance carriers, based on the evaluation of claims which are presented. If a patient has a poor result or some unforeseeable complication it is much easier to blame a name on a bill or a physician who has been seen perhaps only once, as opposed to the doctor who has demonstrated genuine interest and given conspicuous time to the patient.

A recent study in Iowa by the Aetna showed that family practice insureds accounted for 14% of the claims while general surgeons had 31%. No specialty appears to be immune from claims.

LOSS CONTROL ACTIVITY

One enterprise which appears to have contributed to the favorable trend in claim frequency is the Aetna loss control and education program which began nationally in 1971 and became active in Iowa in 1977. This effort to prevent claims is much more productive than worrying about

losses. At Aetna we do not have the answers to all of the professional liability questions, but, as a partner with the Iowa Medical Society, in a cooperative program, we are sharing information, pointing out the problem areas, and creating an awareness of what can give rise to a claim.

Common sense, on the part of physician and patient, will indicate how many claims can be prevented. There are three basic areas:

Rapport — The absence of rapport, coupled with a bad result, can create the climate for a malpractice claim. Those who are involved with a patient's care in a physician's office, clinic or hospital should foster good rapport and keep patients apprised of the doctor's schedule and the progress of their case. A good portion of the malpractice claims are triggered by a loss of rapport combined with a poor result.

Reason — Patients more and more want to know why something is or is not being done. If the physician fails to keep a patient informed of the progress, the individual may become frustrated. Enter here as well the matter of informed consent. How much does the patient need to know? This is still an area for judgment by the physician, but it is generally held now the patient must have enough information to enable him to evaluate and decide intelligently what he wants to do.

Records — If something is not in the records, it is considered not done. Documentation is critical in all aspects, i.e., the patient's history, prescriptions, progress notes, informed consent discussions, etc. Reference is frequently indicated to explain why things were not done, just as much as those that were done. For example, if a physician considered x-rays for a head or back injury, but for some reason discounted that procedure, the record should so indicate and why. Otherwise, if a claim later arises, a physician may find it difficult to defend his memory, but if the record is documented, his defense will be much stronger.

These three R's — Rapport, Reason and Records — are critical in professional liability.

In summary, the general liability climate is improving nationally. And Iowa is continuing its good record. We are pleased to have expanded our leadership role in trying to find answers in cooperation with the medical profession. We believe the IMS/Aetna Professional Liability Insurance Program is a good example of a cooperative effort. We are hopeful and optimistic about its success.

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Renal Transplantation At The University of Iowa

ROBERT J. CORRY, M.D. lowa City

1979 will mark the tenth anniversary of renal transplantation in Iowa. 370 have occurred to October. The progress is encouraging. Discussed briefly here are the results as well as the status of the retrieval program.

THREE HUNDRED AND SEVENTY renal transplants have been performed at The University of Iowa Hospitals and Veterans Administration Hospital in Iowa City since November of 1969. Over 300 of these have occurred in the last five years; 51 so far in 1978.

Ninety-six of the transplant patients have received kidneys from living related donors while 274 have received cadaver kidneys. The patient survival rate has improved steadily each year. For example, of the last 100 transplants performed at the U. of I. center, 94% of the patients are living. This low mortality rate is encouraging, particularly since we are accepting a higher percentage of recipients considered to be in the "poor-risk category," i.e., patients with juvenile onset diabetes mellitus with irreversible renal failure and patients older than 50 years of age. Thus, a patient experiencing renal failure has at least an equal chance of survival with a transplant as does the patient on chronic hemodialysis. If the transplanted kidnev rejects, the patient is returned to a dialysis program and has subsequent opportunity to receive another kidney.

Dr. Corry is a professor in the Department of Surgery at the University of Iowa College of Medicine and is director of the Transplantation Service.

Rejection is the primary cause for failure of a transplanted organ. The lymphocytes, most particularly the T-lymphocytes (thymus-dependent), have been responsible for cellular rejection by reacting with specific surface receptors of foreign tissue. The B-lymphocyte (bone marrow dependent) is responsible for humoral (antibody) immunity. The administration of immunosuppressive drugs represents the cornerstone in the control of the process of rejection. The drug combination of prednisone and azathioprine is used to forestall rejection and lessen its vigor, and high dose methylprednisolone is used to treat rejection episodes. Although antilymphocyte globulin (ALG) has been shown to be highly effective in prolonging survival of transplants in rodents and other mammals, its promise in humans has not been fully realized.

FACTORS INFLUENCING TRANSPLANT OUTCOME

While patient survival has been the major goal of the Iowa program, we constantly strive for methods of achieving improved graft survival (Figure 1). Three major factors have emerged in the last few years at our center to favorably influence graft outcome.

Recipients in the "good-risk category" have a substantially better graft survival rate than the "poor-risk" recipient group. For example, exclusion of the "poor-risk" patient data results in a graft survival rate 10% better than the survival rate of the overall group. 1 Obviously, the "poor-risk" patient is not denied a transplant in our center, but he is informed his chance of graft success is not quite as good as a younger patient without a systemic disease such as diabetes mellitus.

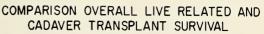
Histocompatibility matching of donors and recipients has played a significant role in predicting

graft survival. Success to date has been the greatest when the recipient received a kidney from an identically matched sibling donor. In this program, success has been over 90% with an identically matched kidney. The genetic region controlling the "tissue type" of an individual is located on the sixth pair of autosomal chromosomes and the specific region is called the Major Histocompatibility Complex (MHC). Therefore, if one follows the simple genetic laws of inheritance, it can be easily seen that two offsprings could inherit the same two chromosomes from each parent that governs the MHC-type. These two individuals would be identical and would be the ideal donor-recipient combination. Thompson has shown that recipients of cadaver kidneys matched for a single haplotype with the cadaver donor have an improved graft survival comparable to the graft survival of a living related kidney whose donor is a parent or single haplotype matched sibling. 1, 2

The transfusion of blood to patients awaiting a transplant previously has been considered to be relatively contraindicated since cytotoxic antibodies develop which later can react against grafted tissue. However, in 1973, Terasaki and his colleagues published data suggesting that patients receiving blood had a better survival rate than those who received no blood. Our own group and others have substantiated this finding, and we have further shown recently that transfusions given the day of renal transplantation are also associated with an improved graft survival (Figure 2).^{3, 4} Therefore, it has been our policy in the last several months to electively transfuse two or three units of white cell poor blood at the operating table, if the patient has not had blood transfusions before. If the procedure of transfusing on the day of transplantation continues to yield a better graft survival, we would return to our earlier policy of withholding blood to patients on dialysis unless transfusions are absolutely necessary. Thus, patients in the "good-risk category," those who have received better matched kidneys (haplotype matches), and those who have received blood transfusions either before transplantation or on the day of transplantation, have an improved chance of graft success.

KIDNEY RETRIEVAL PROGRAM

Although we have continued to perform a few more renal transplants each year at The University of Iowa, retrieval of cadaver kidneys in Iowa has not changed substantially over the last several



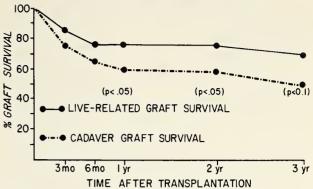


Figure 1. Comparison of actuarial renal transplant survival rates between live-related donor and cadaver transplants.

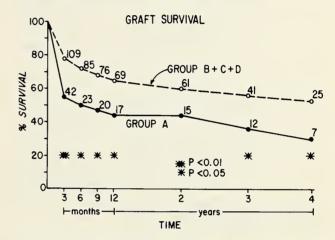


Figure 2. Comparison of actuarial survival rates of renal transplants. Group A recipients were not transfused, Group B, Group C, and Group D received blood transfusions.

years. However, more kidneys have been received from other centers in the last few years, principally as a result of the UNITED ORGAN SHARING SYSTEM (UNOS). This is a computerized system that selects the best matched recipient in the country for a particular donor kidney. Thus, of the last 100 transplants performed in our center 30 kidneys have been received from areas outside the State of Iowa (Table 1). Similarly, in the last two years, our transplant program's organ retrieval team has sent 30 kidneys to be transplanted at other centers (Table 2). The export of kidneys from our own program occurs because appropriately matched recipients are not available in Iowa. Obviously, the more kidneys removed in our own state by our retrieval team, the greater likelihood of finding better matched cadaver kidneys for our own recipients.

(Please turn to next page)

TABLE 1
KIDNEYS RECEIVED FROM OUTSIDE OUR SYSTEM*

Konsos City, Missouri	6
Minneapolis, Minnesoto	7
Oklohoma City, Oklohomo	4
Chicogo, Illinois	4
Orlando, Florido	2
Omoho, Nebrosko	2
Rochester, Minnesoto	1
Cincinnoti, Ohio	1
St. Louis, Missouri	1
Foronto, Canodo	1
.ittle Rock, Arkonsos	

^{*} Lost 100 tronsplonts.

There are several distinct advantages in using kidneys removed by our own team. First, storage time is substantially reduced as compared to kidneys received from greater distances. For example, selection of recipients can sometimes take place even before removal of the kidneys. Secondly, precise anatomical and functional details of the kidneys are known to our team ahead of time, which is not always the case with outside kidneys. Third, timing of the removal and subsequent transplantation can be controlled.

The logistics in finding recipients for two kidneys are, to say the least, interesting if two recipients are not available in The University of Iowa program. Several possible recipients appear on the computer printout list, usually from different centers in the United States. Phone calls are made to these centers and the medical status of each recipient is evaluated by appropriate physicians and messages are returned. When a "home" is found for a kidney, either commercial or private flights (Iowa City Flying Service) are arranged and kidneys are sent to these other centers. In most instances, kidneys are being dynamically perfused with a plasma-like solution on the Water's MOX 100 pulsatile preservation unit. Regulation of pressures, flows, pH, and temperature must be carried out at frequent intervals even in flight. Two first-class seats are required on commercial aircraft, one for the machine and the other for the individual monitoring and regulating the various parameters mentioned above.

Even after delivery of a kidney half way across the country, cytotoxic cross matches are occasionally positive for the designated recipient. In other words, prior to the actual transplant procedure,

ORGAN DONATION AND THE IOWA DRIVER'S LICENSE

A major challenge to renal transplantation in Iowa is the availability of cadaveric kidneys. When more kidneys are available, more transplants can be done, better matches will be possible, and the number of Iowans awaiting a transplant will be reduced.

The problem of organ donation in Iowa is more awareness than willingness, according to the Kidney Foundation of Iowa. When individuals become aware of the need for donated kidneys, says the KFI, and realize that organ donation is a significant act of humanitarianism, permission for kidney recovery is usually given.

A recent Iowa Poll published in the DES MOINES REGISTER showed 51% of Iowans are willing to donate kidneys. The poll also indicated most Iowans do not understand organ donation. The Kidney Foundation is constantly seeking to raise the level of lay and medical awareness so as to

increase the supply of kidneys for the Iowa Transplantation Service.

A prime vehicle for alerting the lay public (and medical professionals) is through the Iowa driver's license. Iowa law now makes it possible to indicate a desire to donate kidneys (and corneas) on the back of the license. Upon renewal or issuance of a license, Department of Transportation personnel inquire as to the driver's interest in organ donation. Those drivers with a signed "Uniform Donor Card" are given a sticker stating "organ donor" to attach to the back of their license. Donor cards are available at all Driver's License Examination Stations.

Several hundred thousand Iowans go through the process of obtaining or renewing a driver's license every year. At that time, the organ donor program is visible and an excellent opportunity is provided to promote understanding and participation.

For further information on this subject contact the Kidney Foundation of Iowa, 8611 Hickman Road, Des Moines, Iowa 50322 (800/532-1177) or the Iowa Transplantation Service (319/356-3585).

the recipient's serum must be tested against lymphocytes of the donor, and if the reaction is positive, a preformed antibody specific for donor tissue exists which precludes transplantation. It then becomes the task of the transplantation center receiving the organ to send the kidney elsewhere. In some cases, kidneys can not be used due to positive cross matches in several centers. Time may simply run out with respect to the storage capability of the organ. The cost of such an organ is absorbed by the last transplantation center receiving the kidney. Although the placement of a kidney frequently takes 24 or more hours and dedicated personnel working around the clock, it is usually worth the effort. Recently, a recipient from Iowa received a kidney, 40 hours after removal and has had no rejection and has returned to school, living a completely normal life. This individual had rejected a non-identical sibling kidney less than a year ago. It is cases like this that make the efforts worthwhile.

ACKNOWLEDGEMENT

The author wishes to acknowledge Donna Jo Vitosh, Barbara Schanbacher, R.N., Stephen E. Kelley, and Paul Hert for the compiling of data and coordinating the sharing of kidneys between centers.

TABLE 2
KIDNEYS SENT TO FOLLOWING CENTERS*

Kansas City, Missauri		٠.	٠.								 		 		6
Ann Arbor, Michigan									 		 		 		5
Columbus, Ohia											 		 		3
New Yark, New Yark			٠.								 				2
Minneapolis, Minnesota .											 		 		2
Las Angeles, California .											 		 		1
Tucsan, Arizana											 				1
Haustan, Texas											 				1
Woshington, D. C											 				1
Gainesville, Flarida											 		 		1
Oklahama City, Oklaham	3										 				1
Rochester, Minnesata											 				1
Omaha, Nebrosko											 				2
Memphis, Tennessee											 				1
Lexington, Kentucky											 				1
Augusta, Geargia															1

^{*} Remaved by aur transplant team in last two years.

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AIR FORCE. HEALTH CARE AT ITS BEST.

Cardiac Surgery

STEVEN J. PHILLIPS, M.D. Des Moines, Iowa

The number of cardiac surgeries has increased substantially in recent years. Among 1500 patients at Mercy Hospital in Des Moines the mortality rate has been under 3%. In this paper are described briefly the procedures followed and the facilities available.

THE CENTER for cardiac surgery in central Iowa was designated at Mercy Hospital in Des Moines in 1972 by the then existent Health Planning Council. The growth of this service in the intervening six years has been significant and credit is due the health care and administrative team involved.

Cardiac surgery is a relatively new specialty having had its definitive origin in the early 1950's. Compared to other areas of medical specialization, the technology here has reached a high level of sophistication in a relatively short time. This technology has been implemented in all aspects of adult and pediatric cardiac surgery at Mercy Hospital and other centers in the country. Parallel with the growth of the clinical program, there have been investigative programs in temporary and permanent partial artificial hearts, surgical therapy for salvage of ischemic myocardium, and research in cardiac transplantation.

Since 1974 approximately 1500 adult and pediatric operations requiring cardiopulmonary bypass have been performed at Mercy Hospital.

The clinical procedures are described briefly in this report.

PHYSICAL FACILITIES

The need for adequate and modern facilities is obvious. Two new cardiac surgical operating rooms with a third swing room have been created in a section of the operating area at Mercy Hospital. Facilities include a cardiac surgical mini laboratory, monitoring stations, closed circuit TV with video tape capabilities. Three heart lung machines, four intra-aortic balloon pumps and one pulsatile assist pump are available for use. There is a full complement of heart-lung perfusionists and cardiac surgical nursing teams available around the clock. Eight adult and pediatric beds are located in a cardiac recovery unit adjacent to the operating rooms.

SURGICAL TECHNIQUES

Present cardiopulmonary bypass for all types of adult cardiac surgery is carried out utilizing non-blood prime with a bubble oxygenator, total body hypothermia (28-34°), and cold cardioplegia. Most operations are performed using ascending aortic cannulation for arterial return and single venous drainage of the right atrium. Venting of the left ventricle or atrium is rarely employed. Total correction of complex congenital anomalies in patients weighing less than 10 pounds is usually performed utilizing deep hypothermia (15-20°) and circulatory arrest.

Approximately 15% of all surgeries are performed without blood transfusion.

CORONARY ARTERY SURGERY

Coronary artery disease was essentially managed medically until the development of direct coronary artery revascularization. Cardiac surgical procedures, such as pericardial abrasion and (Please turn to page 407)

Dr. Phillips is in the private practice of cardiac surgery in Des Moines, Iowa.

CARDIAC SURGERY

(Continued from page 406)

talcum powder instillation, closure of the coronary sinus (Beck), internal mammary (Vinberg) or splenic artery implantation, etc., have not been done during the time frame included in this report.

Direct coronary artery revascularization (SVBG) is the most common cardiac operation done in the United States and at Mercy Hospital. Approximately 1200 SVBG alone or in combination with ventricular resection or valve replacement have been performed at Mercy to date.

The present conduit of choice is the autogenous saphenous vein removed from the lower legs (SVBG). This vein is reversed and sutured to the ascending aorta in an end to side fashion, then sequentially side to side and end to side to two or three coronary arterial branches. The average number of bypass grafts performed is four. All procedures are carried out with four-power optical magnification. The use of direct internal mammary (IMA) anastomosis to coronary arteries has been discontinued except in selected situations. It has been found that unlike the vein the IMA often cannot carry high volumes of blood and that partial devascularization of the sternum by removing the mammary pedical can result in an increased post-operative infection rate (3% for one mammary, 10% for two). The one year patency in our hands of 44 direct IMA compared to 50 direct SVBG to the left anterior descending coronary artery revealed no significant differences — 88% patent SBVG vs 90% IMA.

Other conduits occasionally used when the lower leg veins are not available are thigh saphenous veins, arm veins, and heterotopic bank veins.

The overall surgical mortality (30 day) rate for elective, urgent and emergent SBVG is as follows: Elective SVBG for stable angina is 0.8% (6 of 760 patients), urgent SVBG for unstable angina is 4.2% (15 of 366 patients). Emergency SVBG during a three year study of 75 patients with early evolving myocardial infarction was 1.3% (1 of 75). The overall SVBG mortality rate is 1.9%. There have been no deaths associated in 48 SVBG and myocardial resections, 16 SVBG and aortic valve replacements, or the 3 SVBG and multiple valve replacements. One death occurred in 5 SVBG and mitral valve replacements.

Post discharge follow up is periodically

scheduled and reangiography is planned at one year. A double blind study comparing a group of 70 patients taking anti-platelet drugs to a similar group of patients not receiving them revealed no difference in graft patency rate at one year. There was a difference in post-operative embolic phenomenon: 4 of 64 patients not taking aspirin and persantine had embolic episodes. We now recommended aspirin 10 gr and persantine 50 mg twice a day for three months following discharge.

VALVULAR SURGERY

A large variety of mechanical and tissue valves are available for clinical use. The glutaraldehyde tissue valve commercially harvested from the pig has been preferred. This central flow valve has very good hydralic characteristics in the normally used sizes and usually does not require anticoagulation. A large number of these valves have been followed into their eighth year postimplantation with very low thromboembolic and failure rates. These failure and embolic episodes compare very favorably when related to the same phenomenon in mechanical valves. Approximately 175 intra-cardiac procedures involving valve replacements have been performed since 1974. Most combined procedures involved valve replacements with SVBG. There have been no valve failures and no significant morbidity related to the use of the pig valve. There have been no operative (30 day) deaths associated with a ortic valve or multiple valve replacements either alone or in combination with other types of cardiac repair. There has been an 8% mortality (7 of 85 patients) associated with isolated mitral valve replacement or repair. The mitral valve mortality is approximately the same as the national average, while the aortic and combined or multiple valve mortality (0%) is far below the national incidence of approximately 5-10% respectively.

PEDIATRIC SURGERY

Approximately 125 congenital repairs have been carried out with an overall mortality in the range of 8%. The mortality rate for elective intracardiac repair of congenital defects is approximately 4% and emergency repair of palliation of complex congenital lesions has been 12.5%.

(Please turn to next page)

TEMPORARY AND PERMANENT PARTIAL ARTIFICIAL HEARTS

Since 1974, 101 patients (80 men, 21 women) had some mechanical circulatory assistance for ventricular power failure. In the instances, balloon pumping (IABP) was used in 95 patients; a modified Pulsatile Assist Device (PAD) in 4, and a Permanent Parallel Aortic Pump (PAP) in 2.

Of 95 patients, 64 had IABP for myocardial infarction (MI). Interval from MI to IABP averaged 2.8 days (2 hrs.-9 days). Sixteen died during IABP; 2 after IABP removal and 10 within 1 week of emergency cardiac surgery (28 deaths — 45%). Thirty-four patients (55%) survived.

IABP was used prior to elective cardiac surgery in 4 patients. Three patients had IABP prior to mitral valve replacements and 1 prior to aortic valve replacement; all survived. Twenty-nine patients had IABP following surgery. Twenty-three (80%) survived. A modified PAD was used in 4 patients with MI when IABP could (50%) not be inserted. Two patients survived. The PAD was connected to the femoral artery as a closed ended pump. Blood was withdrawn during systole and

reinfused during diastole. The device was timed in the same fashion as the IABP.

Two patients with chronic left ventricular failure had a PAP inserted. The PAP was attached from the ascending aorta to the descending aorta. Stroke volume was 40 and 70 cc. The air hose was exteriorized via the iliac crest. Timing was carried out via a doppler with a modified IABP driving unit. The patients died 30 and 39 days post-operatively. The PAP, in both cases, was functioning normally and the skin button was well healed.

SUMMARY

All types of adult and pediatric cardiac surgery are performed at Mercy Hospital. The overall mortality in 1500 patients has been under 3%. Modern facilities and strong continuing education programs have allowed the service to grow and provide cardiac surgical care in the central Iowa area.

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A bibliography prepared in association with this article is available from either the author or the JOURNAL OF THE IOWA MEDICAL SOCIETY.

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M. E. ALBERTS, M.D., Scientific Editor

TRADITION

Tradition is the cultural continuation of a social institution. To qualify as such there is commonly a need for scheduled recurrence covering many years. But each tradition has had to have a specific beginning. This issue of the JOURNAL represents the continuation of what is at least a brief tradition. The November 1977 IMS JOURNAL was thought to be innovative for state medical society publications; that issue was patient-oriented in content with information about the workings of the medical profession as well as an update on the state of the art in Iowa. The responses to this issue were excellent. It helped us achieve further journalistic recognition. The judges of a competition in which we participated commented on this innovation. They were seemingly impressed.

This November 1978 issue of the JOURNAL has material we think will be of interest to patients as

well as Society members. Read the issue first, doctor; then place it in the reception area of your office. We want the people of Iowa to know about us and the provision of health care in this state.

Two easily noted inserts are of special interest. One addresses the complex and controversial issue of the cost of health care. The other describes what probably may be the best answer to the health care dilemma, notably a more thoughtful and intelligent life style.

There has been much interest in cardiac surgery, organ transplantation, and other exciting forms of therapy now available to patients. Status reports on these subjects are provided. Further, with full realization that life must some time terminate, we must address the modern concepts of death. We present a thoughtful discussion of this subject.

We hope this infant tradition of providing a diversified, public-oriented November issue is acceptable. Reader comment is sincerely invited.

— M.E.A.

SEASONAL FRUSTRATIONS

Autumn frustrates my feeling of well-being. There seem to be so many things to accomplish before the arrival of snow, ice and frigid winds. The summer is busy, but now the pace becomes even more hectic, professionally as well as personally.

Early, after the new school year begins, there is the onslaught of required physical examinations so students can participate in athletics. For some reason, the examination "must be done today." Further, to complicate the picture, the Des Moines schools need one report form for each seventh and tenth grade student, plus another one if the student is entering some form of athletic program. Then, soon after school starts we begin to see an increase in respiratory illnesses. This is accompanied by frantic endeavors to seek "quick cures" to minimize school absence. This creates further frustration.

Parents are completely bewildered as to why their particular child has repeated upper respiratory infections, when he/she seems so healthy otherwise. With all things equal it seems the good Lord just created some kids to be better homes for "bugs."

Another professional frustration is the matter of continuing medical education. Each day's mail brings an announcement of a meeting or CME seminar at some enticing and warm place. The

(Please turn to page 410)

EDITORIALS

(Continued from page 409)

dilemma of deciding on a desirable place, changing scheduled appointments, and making other necessary arrangements adds to the frustration. I have never been to Phoenix; perhaps I should register for a CME course there this winter. My friends tell me it's nice there in January or February.

The non-professional frustrations pile up in autumn as well. The lawn needs care to promote a good response in the spring. Bulbs for spring flowers have to be selected and planted. Plans have to be made for new plantings of shrubs and perennials to replace or supplement the present landscaping. The vegetable garden has peaked and needs to be cleared. The biggest challenge around the house is to formulate a fool-proof method of convincing a teenager it would be nice for him to contribute a little labor in return for all the food he consumes.

Other possible tasks include such matters as checking the snow-blower so it can be put to use on the first day of snow; getting snow tires on; possibly waxing the car before cold weather, and on and on. Oh yes, the lady of the house wants the windows washed. I'm glad I have no summer cottage to close, boat to put in dry dock, or have to be concerned about new skis and other winter sports paraphernalia to have in readiness. Whew! it could go on and on. Then to add to it — I had a deadline to reach to get this column written. On top of it, guess what? My wife suggested a couple days ago we had better get our Christmas greeting cards ordered so they could be addressed before the last minute rush. Rush!! she says. I'm going around in circles already. — M.E.A.

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weeks) in a regimen of weight reduction based on caloric restriction.
The limited usefulness of agents of this class should be measured
against possible risk factors inherent in their use such as those
described helow

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result). WARNINGS: If tolerance develops, the recommended dose should

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. Drug Dependence: Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extrem fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, after clinically indistinguishable from schizophrenia. Use in Pregnancy: Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. Use in Children: Tenuate is not recommended for use in children under 12 years of age.

indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. Use in Children: Tenuate is not recommended for use in children under 12 years of age. PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements indiabetes mellitus may be altered in association with the use of Tenuate and he concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order tominimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

should be carefully monitored. Ittration of oose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: Cardiovascular: Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. Central Nervous System: Overstimulation, nervousness, restlessness, dizziness, jit teriness, insomnia, anxiety, euphoria, depression, dysphoria, termor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. Gastrointestinal: Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. Allergic: Urticaria, rash, ecchymosis, erythema. Endocrine: Impotence, changes in libid, gynecomastia, menstrual upset. Hematopoletic System: Bone marrow depression, agranulocytosis, leukopenia. Miscellaneous: A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and poliuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydro-DDSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age. OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultveness, hallucinations, panic states-Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias. hypertensis on of hypotension and circulatory collapse. Gastromias.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultweness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this repard. Intravenous phentolamine (Regitine*) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates renuate overdosage.

Product Information as of April, 1976
MERRELL-NATIONAL LABORATORIES Inc
Cayey, Puerto Rico 00633
Direct Medical Inquiries to:
MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215, U.S.A.
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References: 1. Citations available on request — Medical Research Department, MERRELL RESEARCH CENTER, MERRELL-NATIONAL LABORAT ORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M.T., O'Dillon, R.H., and Leyland, H.M.: A Comprehensive Review of Diethylpropion Hydrochloride. International Symposium on Central Mechanisms of Anorectic Drugs, Florence, Italy, Jan. 20-21, 1977.



8-3921 (Y587A

Family Physician Recruitment: A New Approach in Iowa

STEPHEN SIDWELL, M.D.,
BRUCE BRENHOLDT and ROGER TRACY
Iowa City

Family physicians looking for practice locations. Iowa community representatives seeking doctors. A project emerges to initiate contact between the two. The results are favorable. The event is repeated this month.

RETAINING IOWA-TRAINED family physicians to practice in Iowa is a goal shared by several organizations including the University of Iowa College of Medicine. To ensure continued achievement of this goal, the Iowa Family Practice Residents' Council (an organization representing 155 family physicians training in 8 Iowa family practice residency programs) organized and conducted a "Practice Opportunities Fair" in Des Moines in October, 1977. The council's idea received support from the Iowa Medical Society, the Iowa Academy of Family Physicians and the Univerity of Iowa College of Medicine. These groups joined with the Council to co-sponsor the first "Family Practice Opportunities Fair." The purposes of the program were: to help residents conveniently obtain information on a large number of Iowa practice opportunities; and to give representatives of Iowa communities recruiting family physicians an opportunity to make personal contacts with the residents.

RESIDENT PHYSICIAN/COMMUNITY PARTICIPATION

One hundred thirty-nine residents were trained in 7 Iowa family practice programs in 1977. Of these residents, 57 (41%) were able to attend the Practice Opportunities Fair. All residency programs were represented. Almost 75% of the residents attending were in their second or third year of training. First-year residents not yet actively looking at alternative practice sites, and third-year residents already committed to a particular site constituted the majority of those who did not attend the Fair.

Representatives from 52 Iowa communities attended the Fair. A majority of the participating communities are located in rural areas with a population of less than 5,000 persons. Table I lists the community participants by population category.

RESIDENT/COMMUNITY INTERACTION

Personal contact between resident physicians and community representatives was achieved at the Fair in several ways. Each participating community was assigned an exhibit booth. Two representatives of each community were at their booth to distribute informational materials, answer questions and invite individual residents to visit their town or city. Residents and their spouses toured the exhibit hall in the morning and afternoon. A luncheon — attended by community representatives, residents and residents' spouses featured a presentation on factors residents frequently consider in selecting a practice site, and professional considerations practicing physicians and lay persons need to be aware of when recruiting family doctors. The evening schedule was left open to allow further discussion between community representatives and interested residents.

^{*} Dr. Stephen Sidwell is a third-year resident in the Davenport Family Practice Residency Program, and a 1976 University of Iowa medical graduate. Bruce Brenholdt and Roger Tracy are in the Office of Community-Based Programs at the University of Iowa College of Medicine. They work closely with the IMS Placement Service to assist Iowa physicians and communities with their recruitment activities.

TABLE I

IOWA COMMUNITIES PARTICIPATING IN THE 1977 FAMILY PRACTICE OPPORTUNITIES FAIR BY POPULATION CATEGORY

Less than 1,000 (5)	Missouri Volley
Blairstown	Nevodo
Glodbrook	New Hompton
Rolfe	Oronge City
Solon	Osceolo
Strotford	Rock Ropids
	Sheldon
1,000-2,499 (15)	5,000-9,999 (12)
Allison	Atlontic
Belmond	Corroll
Brooklyn	Choriton
Clorksville	Centerville
Corydon	Decorah
Hortley	Foirfield
Holstein	Horlon
Loke City	Indionolo
Poullino	Le Mors
Postville	Moguoketo
Sumner	Shenondooh
Story City	Storm Loke
Toledo	
Troer	Greoter than 10,000 (8)
Wopello	Burlington
2,500-4,999 (12)	Clinton
	Davenport
Albio	Dubuque
Audubon	Fort Dodge
Clorion	Fort Modison
Eldoro	Muscotine
Howorden	Sioux City
Total number of participating	communities: 52

SURVEY RESULTS FROM THE COMMUNITIES

Six months after the Fair, a questionnaire was sent to representatives of each participating community. Responses were received from 88% of the communities (and 74% of the individual representatives). A summary of the responses to the survey questions is shown in Table II. The responses indicate almost every community thought the Fair was beneficial, and most plan to participate again.

ASSESSMENT BY FAMILY PRACTICE RESIDENTS' COUNCIL

The 1977 Practice Opportunities Fair was judged by the Residents' Council as a highly effective means of establishing initial contact between residents interested in Iowa medical practice opportunities and communities recruiting family physicians. Although only one resident had been recruited to an Iowa community as a result of the Fair at the time of the survey, several additional Iowa sites are "still in the running" as a result of contacts made at the 1977 Fair. In addition, the effects of Iowa communities gaining "a better understanding of what young family physicians are seeking" should result in more family physicians being attracted to Iowa communities.

ANOTHER EVENT IN 1978

The Family Practice Residents' Council is now planning a 1978 Family Practice Opportunities Fair. The Fair will be November 11 in Des Moines. The Iowa Medical Society, the Iowa

(Please turn to page 418)

TABLE II

SUMMARY OF COMMUNITY REPRESENTATIVES' RESPONSE TO 1977

PRACTICE OPPORTUNITIES FAIR EVALUATION QUESTIONNAIRE

	Re	esponses (N =	66)
	Yes	No	Uncertoin
Questions (Abbrevioted)	%	%	%
1. Wos the Foir beneficiol?	87	3	10
2. Should the Foir be conducted onnually?	90	3	7
3. Would your community porticipate agoin?	72	10	18
4. Is foll a convenient time of year for the Foir?	94	2	4
5. Wos the registration fee (\$75.00) too high?	17	68	15
6. Wos the formot of the Foir satisfactory?	94	3	3
7. Wos the time ollowed odequote?	90	9	1
8. Did you hove sufficient spoce?	36	63	1
9. Were the conference focilities oppropriate?	54	23	23
10. Hove ony residents visited your community os o result of the Foir?	32	66	2
11. Hos your community recruited a resident as a result of the Foir?	2	92	6
12. Hove you goined a better understanding of what young family physicians			
ore seeking as a result of the Fair?	79	15	67

The Question Box



by WILLIAM R. BLISS, M.D.

COST CONTAINMENT ACTIVITY

Dr. Bliss is co-chairman of the Iowa Voluntary Cost Containment Committee. The other cochairman is Sister Mary Venarda, administrator of Mercy Hospital in Iowa City. Dr. Bliss is a general surgeon in Ames.

What is the Iowa Voluntary Cost Containment Committee?

The IVCCC is that organizational entity at the state level which has been formed to implement the national VE (Voluntary Effort) to contain and reduce the level of escalation in health care costs. The national VE was initiated by the American Medical Association, the American Hospital Association and the Federation of American Hospitals. The IVCCC operates under the auspices of the Iowa Medical Society and the Iowa Hospital Association.

What are the goals of the IVCCC?

As implied and in general terms, the Iowa Voluntary Cost Containment Committee is attempting to supply motivation, direction and leadership in Iowa to bring about a reduction in the rate of increase in hospital expenditures without compromising the quality of medical care. A responsible reduction in expenditures for capital outlays is also sought.

How did the VE come about?

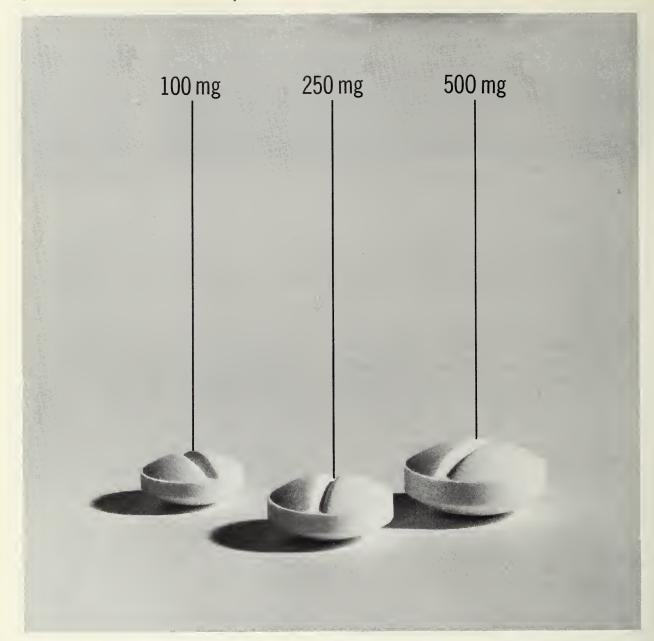
The Voluntary Effort was undertaken in response to the challenge by Illinois Congressman Dan Rostenkowski to hospitals and physicians to bring increases in the cost of hospital care under control, the alternative being a governmentally imposed 9% cap on hospital expenditures. President Carter has repeatedly urged such a cap in his anti-inflation campaign. VE participants maintain the goal can be achieved voluntarily.

What sort of people serve on the IVCCC?

The committee has 15 members. They include physicians, hospital administrators, consumers and representatives of government, industry, health insurers and the media.

What activities are being undertaken?

Presently, the primary activity of the committee is the provisional certification of cost containment hospitals. Provisional certification is accorded when a hospital submits medical staff and governing board resolutions in support of the VE and has supplied requested financial data. Forty-five Iowa hospitals have been provisionally certified by the IVCCC. The committee has developed a model for an internal hospital cost containment committee. It is also devising a cost containment newsletter as well as an educational program.



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Educationally Speaking



by R. M. CAPLAN, M.D.

CME AND THE SPONGE METAPHOR

A distinguished head of internal medicine at a major medical center recently commented to me (and he was serious): "The only justification for almost all the meetings that we call continuing education is to get the doctor away from the pressures of his life so he can get a little rest and come back to his practice with new energy." But then he appended these words to his pessimistic proclamation: "And therefore those meetings are terribly valuable." How's that for an O. Henry ending?

I mention his remark because I'm trying to decide the value of the CME meeting I've just attended. And so these words are being written on a plane. My regular reader (if he is reading this piece, too) will smile at confirming his suspicion that my little discussions are always written during absences from home. But such productivity while away at a meeting contradicts my opening quote, for which I decline to apologize to the distinguished head of medicine. Every course away, then, is a kind of "refresher," a junket free from telephone calls and problem-solving. Go away soggy and limp, a sponge too full of water, and come home having been squeezed out, now lighter, bouncier and ready to take on a new load. Useful CME, if you have followed this train of metaphor, is not the going away and soaking up new biomedical science, but the going away and unloading the stale and stultifying burden of pressure and routine. So much for images. The truth, as usual, lies between.

Mark Twain travelled into the West and wrote for a little newspaper that flourished during the gold and silver bonanza at Virginia City. The news and feature stories that earned him his salt are largely lost or of no importance now. But I remember that his description of the trip west and of life in the boom town were so hilarious that I must re-read Roughing It when I get home — hilarious and vivid, for he paid close attention to the experiences of life and death, distilled them in his internal retort, and then wrote creatively of those adventures. Similarly, every physician observes life and death, enriches his experiences with a bit of spice at a meeting away or by reading at home, distills it internally and it all culminates in the writing of a prescription for a patient. The practice of medicine is thus a highly creative enterprise. It demands faithful observation of experience and imaginative manipulation of abstractions. Complex multi-variable equations are solved in a moment, equations that no mechanical computer can yet solve at all. The result is a written or verbal order called a prescription.

As Roughing It is an aesthetic effort, so is medical creativity. Not every journalist has an internal retort like Twain's nor every physician the thinking power of Harvey Cushing. But a basic necessity to remain productive is to get away at times so the mind can encounter new information and experience. The more you absorb in a fresh setting, the more you will return home as a newly squeezed sponge.

Dr. Caplan is Associate Dean for Continuing Medical Education at The University of Iowa College of Medicine.

State Department of Health

HOME HEALTH CARE

The interest in home health care has increased greatly in recent years. The definition of home health care can vary widely, however, the one used by medicare is commonly accepted: "A home health agency is an agency which is primarily engaged in providing skilled nursing services and may provide homemaker home health aide services, speech therapy services, physical therapy services, occupational therapy services, or medical social services on an intermittent basis to those in their place of residence."

This report will focus on two of these services: public health nursing and homemaker home health aide services. Both services have experienced rapid growth in the past 10 to 15 years. Prior to 15 years ago, there were visiting nurse associations only in Iowa's larger cities, and there were county public health nursing services in less than half the counties. In most cases, the county services were agencies with one nurse, thus the volume and diversity of service was limited. There has been steady growth in the past decade. All Iowa counties but one (Fremont) now have public health nursing services; and the staffs have increased from one nurse to one and one-half, two, three, four, etc. With the expanded staff, it has become much more feasible to provide intermittent nursing care in the home.

This rapid growth has been possible due to a number of factors: (1) A 1967 Iowa law established county boards of health with general responsibility for public health. As these boards examined local needs, it became apparent public health nursing services had to be initiated or expanded; (2) The Iowa State Department of Health was able to offer some federal funds in one to three year grants to help start public health nursing services.

(3) the medical community and the general public recognized the value and desirability of home health care and encouraged or demanded its expansion; (4) Hospitals have done better discharge planning and made more referrals to home health agencies; (5) The Medicare law recognized home health agencies as a part of the care spectrum and provided payment under certain conditions; and (6) The development of homemaker home health aide services provided, in many cases, the added services which, when combined with skilled nursing care and supervision by a public health nurse, allowed individuals to be cared for and to remain in their own homes.

STARTED IN 1961

The first Iowa homemaker home health aide service was started in 1961 with the help of a grant from the U.S. Public Health Service. The expansion of this service across the state is the result of different types of funds being combined and coordinated. Funds from the Public Health Service. through the Iowa State Department of Health; from the Office of Economic Opportunity and the Administration on Aging have been combined with local governmental and voluntary financing and fee income to develop this valuable service. Arranging this multiplicity of funds has been challenging and sometimes complicated, but it has also allowed the development of programs which are broadly based. Homemaker home health aide service is now available in every county in Iowa with over 1,200,000 hours of service delivered to Iowans during the past year.

In 1977 the Iowa Legislature demonstrated its interest in home health care by passing House File 597. The purpose of this legislation is, "To appropriate funds to the Department of Health for the purpose of extending public health nursing, visiting nurse service, and homemaker home health aide services to additional low-income el-

derly persons." An appropriation of \$1,600,000 was provided for FY 78, followed by an appropriation of \$2,228,000 for FY 79. These funds are to be made available to the county and city boards of health through a proportionate formula. All but one of the local boards of health are participating in this program. This state support has expanded further the services available to Iowans. Table I shows the growth of county public health nursing visits to persons age 65 and over during the past two years. Table II shows similar growth in homemaker home health aide services. It should be noted that House File 597 was signed into law in July, 1977 and implementation occurred in most counties between September and December, 1977.

In April, 1978 the public health nurses participated in several home health care studies developed by the Community Health Division. One study attempted to assess the number of persons receiving public health nursing services who would probably have had to be housed in a health care facility if nursing and/or homemaker home health aide services were not available. In this study, the public health nurses completed a twopage form on each different patient visited between April 10 and 14. After reviewing the patient's status and the services being provided, the nurse answered the following question: Would this person probably need to be in a health care facility if nursing and/or homemaker home health aide service were not available? Possible answers were: (1) Yes, probably temporarily; (2) Yes, probably permanently; or (3) Probably not at the present time.

During the study week, the public health nurses in the 19 participating counties saw 689 different patients. The study included all patients regardless of age or reason for visit. Based on the judgement of the involved nurses, it was determined that 193 patients or 28% of those seen would probably have needed to permanently be in a health care facility if nursing and/or homemaker home health aide services were not available. An additional 105 patients or 15.2% would probably have temporarily needed to be in a health care facility if nursing and/or homemaker home health aide services were not available. Another 375 patients or 54.8% would probably have not needed to be in a health care facility.

It is clear home health care is not the answer for everyone in every situation; however, it is appropriate and satisfactory care for many persons including some who are seriously ill.

TABLE I

NUMBER OF VISITS BY COUNTY PUBLIC HEALTH NURSES TO PERSONS AGE 65 AND OVER BY MONTH FROM JULY, 1976 to MAY, 1978

	No. of Visit
July, 1976	9,100
January, 1977	В,200
July, 1977	
January, 1978	
May, 1978	

TABLE II
HOURS OF HOMEMAKER HOME HEALTH AIDE
SERVICE PER QUARTER

	No. of Hours
July/Sept. 1976	
Oct./Dec. 1976	270,000
Jan./Mar. 1977	
Apr./June 1977	300,000
July/Sept. 1977	290,000
Oct./Dec. 1977	318,000
Jan./Mar. 197B	
Apr./July 1978	

PHYSICIANS' KEY ROLE

Physicians, of course, play a key role in home health care. Nursing care is always provided under a treatment plan written or approved by the physician. In many cases the physician is the one who suggests home health care. Another April study examined the characteristics of persons age 50 or older hospitalized within six months prior to being admitted to a county public health nursing service. Fifty forms were completed by nurses interviewing patients. The first question asked what influenced the decision to receive home health care. In nine of the 50 cases the fact that the doctor suggested it was the only item checked. In 15 more cases the doctor's suggestion was combined with another factor. The doctor's suggestion and the patient's own choice were (and should be) the major factors involved in decisions about care.

For more information about home health care in your area, contact your local board of health, public health nursing agency or homemaker home health aide service. For general questions, please contact Ronald Eckoff, M.D., M.P.H., Chief, Division of Community Health, Iowa State

Department of Health, Lucas State Office Building, Des Moines, Iowa 50319. We are also interested in receiving comments or suggestions

regarding the administration of H.F. 597. Any suggestions on this legislation or its implementation will be appreciated.

September 1978 Morbidity Report

	Sept.	1978	1977	Most Sept. Cases
	1978	to	ta	Reported From
Disease	Tatol	Date	Date	These Caunties
Amebiosis	8	133	95	Boone
Brucellosis	4		15	Dubuque, Woshingtan, Montgomery, Muscotine
Chickenpox	80	5704	7461	Scottered
Encephalitis, viral	3	21		Scott
Giardiasis	9	24	65	Bremer, Polk, Morion
Hepatitis A	9	108	88	Kassuth, Palk, Howard
Hepatitis B	15	75	95	Scott
type unspecified	4	45	31	Crowford, Kossuth
Herpes simplex	10	70		Scottered
Infectious mono. Meningitis	149	882	811	Scattered
aseptic	12	29	13	Allamakee, Linn, Polk
bocterial	10	56	15	Scattered
Mumps	11	132	1187	Scattered
Pertussis	4	11	4	Carroll, Clinton, Mantgomery, Des Moines
Pneumonio	186	2176	726	Scottered

	Sept. 1978	1978 to	1977 ta	Mast Sept. Cases Reported From
Disease	Tatal	Dote	Date	These Caunties
Rabies in animals	14	103	101	Scattered
Racky mt. spot. fvr.	1			Muscatine
Rubella (Germon				
Measles)	6	58	167	Dallas, Lee, Block Hawk
Rubeolo	1	54	4275	Dubuque
Salmonello	34	150	206	Scottered
Shigello	6	36	37	Story, Floyd
Tuberculosis				
totol ill	13	117	72	Lee, Howord, Linn, Polk
boct. pos.	12	63	59	Scottered
Venereal diseases:				
Ganorrhea	574	3970	4435	Scattered
P. & S. Syphilis	1	28	30	Polk
Syphilis—other	6	153	224	Scottered

Laboratory Virus Diagnosis Without Specified Clinical Syndrame: ECHO virus, type 6—1; ECHO virus, type 2—1; Typhoid fever—1; Adenovirus—1; ECHO virus 30—1; ECHO virus 9—2; Coxsockie B-4—1; Strongyloides stercoralis—2.

FAMILY PHYSICIAN RECRUITMENT

(Continued from page 412)

Academy of Family Physicians and the University of Iowa College of Medicine will again join the Residents' Council as cosponsors.

Three changes from the 1977 Fair have been made: 1) more space has been reserved; 2) more time has been scheduled for residents and their spouses to tour the community exhibits; and 3) more residents are expected to attend (University of Iowa medical graduates training in family practice residencies outside Iowa are also being invited to attend).

Information about the 1978 Practice Opportunities Fair has been distributed to 397 practic-

ing physicians and lay persons from 226 Iowa communities. These are persons who have contacted the IMS Placement Service or the medical college's Office of Community-Based Programs.

Additional comments from respondents included the following:

- * The Practice Opportunities Fair is a good idea.
- * The Fair was as beneficial for the residents as it was for the communities.
- * Our community needs a doctor now; the residents were making long-range plans.
- * Residents need to recognize that everything cannot be provided for them.
- * Attending the Fair was frustrating. It's hard to recruit for a solo practice when the residents are urged to group.
- * The residents seemed like fine doctors.

in functional G.I. disorders*

Bentyl® (dicyclomine hydrochloride USP)

10 mg. capsules, 20 mg. tablets, 10 mg./5 ml. syrup, 10 mg./ml. injection

helps control abnormal motor activity with minimal anticholinergic side effects[†]

Demonstrated smooth muscle relaxant activity.

In this double-blind study, twenty patients having G.I. series and exhibiting spasm were randomly selected to receive either 2 cc. of Bentyl or sodium chloride intramuscularly. Ten minutes after the injection another radiograph was taken . . .

... Bentyl produced definite relaxation in 8 of 10 patients. The sodium chloride produced relaxation in only 3 of 10. No side effects occurred in either group of patients.



Pylorospasm has almost totally blocked passage of barium meal.



Barium meal beginning to pass 10 minutes after intramuscular injection of 20 mg. Bentyl.

"The correlation of spasm relief and drug given was excellent."

*This drug has been classified "probably" effective in treating certain functional G.I. disorders.

†See Warnings, Precautions and Adverse Reactions.

See following page for prescribing information.

King, J.C. and Starkman, N.M.: Evaluation of an antispasmodic. Double-blind evaluation to control gastrointestinal spasms occurring during radiographic examination. A preliminary report. Western Med. 5:356-358, 1964.

Merrell

Bentyl[®]

(dicyclomine hydrochloride USP)

Capsules, Tablets, Syrup, Injection AVAILABLE ONLY ON PRESCRIPTION.

Brief Summary

For use as adjunctive therapy in the treatment of peptic ulcer. IT SHOULD BE NOTEO AT THIS POINT IN TIME THAT THERE IS A LACK OF CONCURRENCE AS TO THE VALUE OF ANTICHOLINERGICS/ANTISPASMODICS IN THE TREATMENT OF GASTRIC ULCER. IT HAS NOT BEEN SHOWN CONCLUSIVELY WHETHER ANTICHOLINERGICS/ANTISPASMODIC ORUGS AIO IN THE HEALING OF A PEPTIC ULCER, DECREASE THE RATE OF RECURRENCES, OR PREVENT COMPLICATION.

Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FOA has classified the following indications as "probably" effective:

May also be useful in the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis, acute enterocolitis, and functional gastrointestinal disorders); and in neurogenic bowel disturbances (including the splenic flexure syndrome and neurogenic colon)

THESE FUNCTIONAL OISOROERS ARE OFTEN RE-LIEVED BY VARYING COMBINATIONS OF SEOATIVE REASSURANCE, PHYSICIAN INTEREST, AMELIORA-TION OF ENVIRONMENTAL FACTORS.

For use in the treatment of infant colic (syrup). Final classification of the less-than-effective indications requires further investigation.

CONTRAINOICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloro-duodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage, severe ulcerative colitis; toxic megacolon compli-cating ulcerative colitis; myasthenia gravis. WARNINGS: In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazard-ous work while taking this drug. PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy. Use with caution in patients with: autonomic neuropathy; hepatic or renal disease; ulcerative colitis—Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon; hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension; hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition

It should be noted that the use of anticholinergic/antispasmodic drugs in the treatment of gastric ulcer may produce a delay in gastric emptying time and may complicate such therapy (antral stasis). Oo not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur. AOVERSE REACTIONS: Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia: urinary hesitancy and retention; blurred vision and tachycardia palpitations; mydriasis; cycloplegia; increased ocular tension; loss of taste; headache; nervousness; drowsiness; weakness; dizziness; insomnia; nausea; vomiting; impotence; suppression of lactation; constipation; bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis; urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating. With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation. OOSAGE ANO AOMINISTRATION: Oosage must be adjusted to individual patient's

Disaid Dosage Bentyl 10 mg_ capsule and syrup: Adults: 1 or 2 capsules or teaspoonfuls syrup three or four times daily. Children: 1 capsule or teaspoonful syrup three or four times daily. Children: 1 capsule or teaspoonful syrup three or four times daily. Inlants: ½ teaspoonful syrup three or four times daily. (May be diluted with equal volume of water.) Bentyl 20 mg.: Adults: 1 tablet three or four times daily. Bentyl Ingetion: Adults: 9 ml. (20 mg.) every four to six hours intramuscularly only. NOT FOR INTRAVENOUS USE. MAN-AGEMENT OF OVEROOSE: The signs and symptoms of overdose are headache, nausea, vomtting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested if indicated, parenteral cholinergic agents such as Urecholine* (bethanecol chloride USP) should be used.

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ABOUT IOWA PHYSICIANS

Dr. Theodore Scurletis, who heads the State Department of Health's maternal and child health division, was guest speaker at a recent meeting of Child Health Center directors in Ottumwa. Dr. Scurletis described the new Iowa regional geneties program and its clinic format. . . . Dr. Charles A. Longo has joined the Dodge Street Internists in Dubuque. Dr. Longo completed an internal medicine residency at the Mayo Clinic and had a two-year cardiology fellowship at Creighton University School of Medicine in Omaha, Nebraska. For the past year, Dr. Longo has practiced cardiology at Veterans Hospital in Omaha. . . . Dr. W. H. Verduyn, Reinbeck, was guest speaker at a recent meeting of the Black Hawk County Social Services Council. Dr. Verduyn's topic "Human Sexuality and the Disabled." . . . Dr. Roy Hart, psychiatrist, has joined the Student Health Service at Iowa State University. Prior to locating in Ames, Dr. Hart was in private practice in New York City and also was supervising psychiatrist with the New York State Department of Mental Hygiene. . . . Dr. Jack L. Dodd has joined the McFarland Clinic in Ames. Dr. Dodd received the M.D. degree at U. of I. College of Medicine; interned at Pierce County Hospital in Tacoma, Washington; and served his residency in psychiatry at Ohio State University Hospitals in Columbus, Ohio. Prior to locating in Ames, Dr. Dodd was associated with the Palo Verde Foundation in Tucson, Arizona. . . . Dr. David F. Poe joined Dr. Arnold E. Delbridge in August to practice orthopedic surgery in Cedar Falls. Dr. Poe received the M.D. degree at the University of Rochester Medical School in Rochester, New York, and completed his orthopedic residency at Strong Memorial Hospital in Rochester. Prior to locating in Cedar Falls, Dr. Poe served a year with the Indian Medical Service in Gallup, New Mexico.

Dr. Maurice E. Kraushaar, Fort Dodge, has been appointed by Governor Robert Ray to the Advisory Committee on Physicians' Assistant Programs. Dr. Kraushaar is vice president of the Iowa Medical Society and a member of the IMS Committee on Delivery of Health Services.

Vol. LXVIII, No.11

DEATHS

Dr. Herbert C. Leiter, 71, Sioux City physician for almost 40 years, died September 1 at a Sioux City hospital. A native of Austria, Dr. Leiter received his medical education in Austria and Germany and took postgraduate work in dermatology at the University of Vienna. He came to the United States in 1938 and opened an office in Sioux City to practice dermatology in 1940. Dr. Leiter was a member of the Minnesota Dermatology Society, Society for Investigative Dermatology, an honorary member of Iowa Dermatological Society, life member of the American Academy of Dermatology, and the American Interprofessional Institute.

Dr. Pierce D. Knott, 76, Sioux City pediatrician, died September 16 at a Sioux City hospital. Dr. Knott received the M.D. degree at U. of I. College of Medicine. He was a member of the American Academy of Pediatrics, International Academy of Pediatrics, and the North West Pediatrics Society.

Dr. Kirk H. Strong, 52, Fairfield, died September 9 at his home. Dr. Strong received the M.D. degree at the University of Rochester Medical School in Rochester, New York, and interned at Strong Memorial Hospital in Rochester and Hurley Hospital in Flint, Michigan, A veteran of both World War II and the Korean War, he had practiced medicine in Fairfield since 1953. Dr. Strong was a past president of the Fairfield Chamber of Commerce and Fairfield City Council member. Dr. Strong served on the Iowa Medical Society Committee on Alcohol and Drug Abuse, and in 1977 was appointed by Governor Robert Ray to the Iowa Commission on Substance Abuse. He was also a district representative of the Iowa Foundation for Medical Care.

Dr. Walter E. Foley, Jr., 58, Davenport, died September 23 at Mercy Hospital in Davenport. Dr. Foley received the M.D. degree at Loyola University School of Medicine; interned at Cook County Hospital in Chicago, Illinois, and completed his residency in obstetrics and gynecology at Lewis Memorial Maternity Hospital in Chicago. He had practiced in Davenport since 1951. Dr. Foley was a fellow of the American College of Obstetricians and Gynecologists and faculty member of the Family Practice Residency Program in Davenport.

(Please turn to page 422)

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DEATHS

(Continued from page 421)

Dr. Carroll B. Larson, 69, former head of the Department of Orthopedic Surgery at U. of I. College of Medicine, died October 3 at University Hospitals in Iowa City. Dr. Larson received the M.D. degree at U. of I. College of Medicine; interned at Santa Clara County Hospital in California and completed his residency in orthopedic surgery at Harvard University Medical School. He taught at Harvard for ten years before returning to U. of I. as professor and head of the Department of Orthopedics in 1950. Dr. Larson was a past president of the American Academy of Orthopedic Surgeons and past associate editor of the NEW ENGLAND JOURNAL OF MEDICINE and the JOURNAL OF BONE AND JOINT SURGERY. The board of trustees and board of directors of the Shriners Hospitals for Crippled Children recently authorized a Carroll B. Larson lectureship to be conducted annually at University Hospitals. He was a recipient of the Ben T. Whitaker Interstate Teaching Award and the Distinguished Service Award of the Iowa Chapter of the Arthritis and Rheumatism Foundation.

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Medical Assistants



by BETTY EHLERT, CMA-A

MEDICAL ASSISTANT

To be an effective and proficient member of the health care team, the *medical assistant* (who is employed primarily in doctors' offices, clinics and health centers) strives to keep continually informed on the constant changes in her field.

The American Association of Medical Assistants (AAMA) is a non-profit, tri-level organization (national, state and local) dedicated to that kind of professional advancement. The primary purpose of the organization is to provide continuing education to the MEDICAL ASSISTANT TODAY – THE EMERGING PROFESSIONAL.

Iowa is a very active AAMA state with six chapters: Black Hawk, Des Moines, Linn County, Mason City, Scott County and Siouxland. For information concerning AAMA, write Nancy Kloberdanz, membership chairman, Iowa State Society, AAMA, 245 Sixth Place S.E., Mason City, Iowa 50401.

Medical assistants already employed in the field were the first to recognize the need for educational programs. The Medical Assistant Certification examination was first offered in 1963. It now includes specialty examinations in the administrative and clinical areas. Prepared and administered in collaboration with the National Board of Medical Examiners, the examinations

The AAMA recently received notification from the U. S. Department of Health, Education and Welfare that medical assisting has been acknowledged as an allied health profession. The new ruling means specifically, that AAMA and medical assisting programs in institutions of higher learning will have competitive access to grants for research, training, planning and a variety of other educational endeavors.

are given twice a year throughout the United States.

Specific educational programs are now designed to prepare the medical assistant. They are available in junior colleges, private institutions and vocational and proprietary schools. In recent years, these institutions have responded to the demand by providing educational programs for the medical assistant which lead to either a medical assisting diploma or certificate or an Associate of Arts degree in medical assisting. Practical experience in the physician's office or health clinic (externship) constitutes a major portion of the curriculum in these programs.

In addition to accreditation and certification programs, AAMA offers continuing education opportunities in the form of guided study courses, seminars and workshops sponsored by local and state AAMA groups throughout the year. Participants in AAMA approved programs can earn AAMA Continuing Education Unit (CEU) credit which applies to revalidation of certification.

CLASSIFIED ADVERTISING RATE—\$1 per line, \$10 minimum per insertion. NO CHARGE TO MEMBERS OF IOWA MEDICAL SOCIETY. Copy deadline—10th of the month preceding publication.

FAMILY PRACTICE PHYSICIAN WANTED—Residency trained family practitioner to join three-member Family Practice Clinic in Indianola. Contact Donald G. Flory, M.D., 103 West First Avenue, Indianola, Iowa 50125 or call 515/961-2545.

FOR SALE—3-year-old medium green OB-GYN exam table with matching stool and utility table. Write or call Paulino T. Fong, M.D., 1241 8th Street, West Des Moines, Iowa 50265. Phone 515/223-1646.

EXCELLENT OPPORTUNITY—for a physician in Cedar Rapids, Iowa. Assume practice of deceased solo practitioner of internal medicine. Office leased; laboratory and X-ray facilities close at hand. Excellent medical facilities in city. Write Trust Department, P.O. Box 1807, Cedar Rapids, Iowa 52406.

OFFICE SPACE AVAILABLE — Share large medical office in ideal location. Convenient to major hospitals. \$400 per month. AVAILABLE NOW. Phone 515/244-8203.

RADIOLOGIST WANTED — Northeastern Iowa college community with excellent life style for family living needs a radiologist to staff local hospital and one in a nearby community. Very good first year income potential and opportunity for growth. Either call collect, 319/352-4340 or write D. B. MacMillan, M.D., c/o Rohlf Clinic, Waverly, Iowa 50677.

FAMILY PRACTICE OPPORTUNITY — Two board certified family physicians need third physician. New office connected to new hospital (250-beds) with all ancillary and specialized services available. Any interested physicians, please send curriculum vitae to Link, Chapman & Associates, Inc., 1515 West Truman Road, Independence, Missouri 64050, or call collect 816/836-8200 between 9 a.m. and 4:30 p.m.

EXECUTIVE/PROFESSIONAL OFFICE FOR LEASE — Prestigious West Grand Avenue location. 3,000 sq. ft. or less available. Ample convenient parking. For further information contact Sev Johnson, Chamberlain, Kirk & Cline, Inc., 507 Ninth Street, Des Moines, Iowa 50309. Phone: 288-9501 or 955-6537.

FOR RENT—DOCTOR'S OFFICE SPACE IN OTTUMWA, IOWA—4 exam rooms, private office with lovely carpet and paneling has separate entrance, nurse's lab, receptionist's room, two restrooms, paneled waiting room and plenty of parking space. Can also be converted to a dentist's office. For further information write or call Gust Soteropulos, 345 East Alta Vista, Ottumwa, Iowa 52501. Phone 515/684-5682

GENERAL SURGEON WANTED — Ideal location in brand new, all brick building next to two extremely busy GP's engaged in Family/Occupational Medicine. Outstanding opportunity for energetic surgeon. Call or write Dr. William Reinwasser, 2353 S. E. 14th Street, Des Moines, Iowa. 515/244-4141.

This is a unique, and challenging opportunity for a FAMILY PRACTITIONER to develop and expand a central department of Family Practice with peripheral satellites for a multispecialty group in North Iowa. Strong support from the other specialties including Internal Medicine, Surgery, Ob/Gyn, Allergy, and Dermatology is available. Attractive community of 32,000 serving needs of 200,000 area citizens. Convenient to Minneapolis, Mayo Clinic, and Des Moines via I-35. Eight miles to Clear Lake, "Iowa's Vacation Capitol." New office building-hospital complex (August, 1978). Second hospital in community newly remodeled and expanded. Teaching opportunities. Partnership after one year. Salary generous. Vacation and Study Time. Pension Plan program. For more information, please mail your curriculum or call collect AC 515-423-4120, and ask for the "Info Pack" from Park Clinic, 116 N. Washington Ave., Mason City, Iowa 50401.

LIST YOUR WANTS

NORTHERN MISSOURI AND WESTERN ILLINOIS—part-time emergency medicine opportunities. Weekends up to 60 hours. Low patient volume. Remuneration from \$900/weekend plus paid malpractice insurance. Contact T. P. Cooper, M. D., toll free 800/325-3982, Ext. 213.

IDEAL PRACTICE LOCATION—for medical or surgical practitioner in new brick clinic building next to two extremely busy GP's. Will finish to suit. Office located in professionally uncrowded southeast side of Des Moines with booming residential growth. Excellent access and parking on high traffic street. Contact William L. Reinwasser, D.O., 2353 S. E. 14th Street, Des Moines, Iowa 50320. Phone 515/244-4141.

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PSYCHIATRIC RESIDENCY: Vacancies for PG2 through PG4 positions starting January 1, 1979 through July I, 1979. For those eligible for an Iowa Residents License via the ECFMG receive stipends of: Ist year, \$21,294; 2nd year, \$22,360; 3rd year, \$23,478. Those eligible for a regular Iowa license via FLEX or reciprocity receive stipends of: Ist year, \$23,478; 2nd year, \$24,648; 3rd year, \$25,896. Prepare for a career in private practice, community clinics or hospital based psychiatry. Emphasis on close supervision of intensive individual and group psychotherapy, OPD, Children's Unit, Adolescent Unit. Neurology affiliation with University of Iowa. Intensity of training program appreciated best by personal visit. T. B. McManus, M.D., Superintendent, Mental Health Institute, Cherokee, Iowa 51012. Call collect 712-225-2594. Equal Opportunity Employer.

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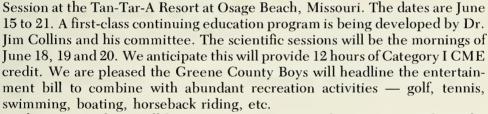
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President's Page

In recent years the Iowa Medical Society has expanded the programs and services it makes available to interested member physicians. One particular area of increased Society programming is education/travel/recreation. Obviously, we think it's important for Iowa physicians to engage in some of each of these. The benefits from such participation accrue to the physician, his/her patients, and to the physician's family.

There are several excellent opportunities coming up in 1979. In January the IMS is sponsoring an air/sea vacation to the Caribbean. Local doctors on each island will present medical programs with Category II credit available. The trip is from January 12 to 20.

Then, next June, we hope a large group of Iowa physicians will attend the IMS Annual Scientific



Also in 1979 there will be a more extensive travel opportunity. This is for member physicians who would like to see Russia. The dates of this trip are June 26 to July 5. Arrangements for the trip are being made by INTRAV.

We wish you and your family a joyous holiday season. We hope too you may include one of the preceding in your 1979 plans.

Anss Gerard MD

Russell S. Gerard, II, M.D., President

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is

affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

IOWA Medical Miscellany

GOOD NEWS FOR AETNA INSUREDS

A dividend totalling \$334,382 is to be returned to physician participants in the IMS/Aetna Liability Insurance Program. This dividend amounts to 18.2% of the premium paid in the 1977 account year. Distribution of the dividend will occur in January.

Word of the dividend and other favorable program developments were presented to the IMS Medico-Legal Committee and the Executive Council November 15/16. On recommendation of the M-L Committee, the Executive Council unanimously acknowledged the positive status of

the program and authorized its continuation in 1979.

Other favorable items in the report which are scheduled for initiation in 1979 include: (1) a premium reduction ranging from 2 to 6% (depending on classification) with a 5.4% overall average; (2) a downward classification in several areas of specialization; (3) a removal of the 5% partnership/corporation surcharge and the 25% employed physician surcharge; (4) an extension of the guaranteed coverage period by one year to take it to 2/1/81; (5) optional availability of a defendants' reimbursement coverage; and (6) a reduction in time required to compute any loss dividend from 5 to 3 years.

Approximately 925 member physicians are enrolled in the IMS/Aetna program, representing about 40% of those who are eligible.

SMALL HOSPITAL BIRTHS... The small Iowa community hospital is a good place for births, according to a U. of I. study published in the November 3 issue of JAMA. The paper by Herman Hein, M.D., Iowa City, contradicts federal views that hospitals with fewer than 500 deliveries a year lack quality and efficiency. Dr. Hein cites the value of medical services being as close to the patient's home as possible. He also notes existence of a system where high-risk expectant mothers are referred for special care. The system has caused newborn mortality to be low in small Iowa hospitals.

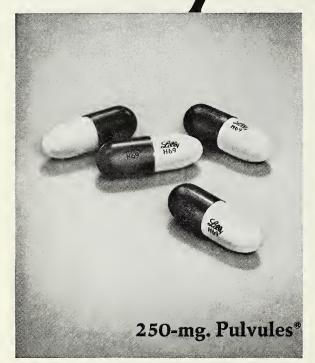
ABORTION RATE... New Census Bureau data show Iowa has the seventh lowest abortion rate in the nation. Statistics for the most recent year (1975) indicate Iowa had 65 legal abortions for every 1,000 live births. Nationally, there were 272 abortions for every 1,000 live births.

INFLUENZA VACCINE . . . Influenza vaccine remains available to physicians from the State Department of Health. It's been estimated, according to the SDH, that only 20% of the high risk group receive flu vaccine in any given year. Vaccine may be ordered by writing or calling Immunization Program, State Department of Health, Lucas Building, Des Moines, Iowa 50319 (515/281-3479).

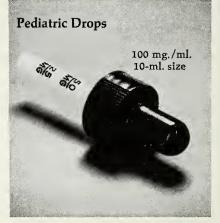
TITLE XIX PAYMENTS... Medicaid payments to medical doctors are up over \$4 million between September, 1977 and August, 1978, compared with the same interval in 1976-1977.

DUES STATEMENTS... 1979 dues statements were mailed in November to member physicians. Participation in the IMS in 1978 was at a near-record high with 2,734 members as of November 1; this compares with 2,636 at the end of 1977.

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The Question Box



by DONALD C. YOUNG, M.D.

1979 IOWA GENERAL ASSEMBLY

The Iowa Medical Society Committee on Legislation is chaired by Donald C. Young, M.D., a Des Moines radiologist. Dr. Young comments here on the recent election and the outlook for the 1979 Iowa lawmaking sessions.

What are your brief comments on the November election, first from the state legislative standpoint?

The change in party control of the General Assembly has been well publicized. A Republican majority will exist in 1979 in both chambers for the first time in several years. The Senate will have a 28-22 edge; the House will be 56-44. Of some significance, as well, is the fact that 45 or more of the lawmakers elected in November have never served before. This would suggest the probability of slow going with a limited amount of legislation passed. This may be good. Very likely the subject of taxation will receive the most time and visibility; the challenge is to provide equity and stabilization (or reduction), however possible. The need for fiscal restraint is quite clear.

What about the Iowa congressional delegation in Washington, D. C.?

Here again, as we know, Republican inroads have been made. We congratulate Senator-elect Jepsen and Congressman-elect Tauke on their victories and Congressmen Bedell, Harkin, Leach and Smith on their re-election. We will seek out every opportunity to share our views with them on national health topics. The manda-

tory cap on hospital charges will likely be the most volatile issue in the health field — with national health insurance probably remaining in the discussion stage.

Has the IMS established legislative priorities?

The Committee on Legislation met November 9 to go over the issues likely to be considered in 1979. As has been our custom, we will support adequate funding for the family practice residency program, the Medicaid program and for the expanding activity of the Board of Medical Examiners. We will look for an opportunity to make the statute of limitations more equitable as it applies to minors. Those areas where we will take a defensive position if legislation is introduced include expansion of chiropractic, use of drugs by optometrists, patient ownership of professional records, legalization of laetrile, a statutory bill of rights for patients, etc.

What about physician groundwork for the coming session?

We encourage physicians individually and through county medical societies to meet with their senators and representatives before the session, to discuss with them the various issues and offer assistance in providing information over the coming months.

Will the IMS LCP program be operative?

Yes. We believe through this network there exists a good means by which the medical profession can transmit pertinent information and current developments to physicians locally and they in turn can provide information and suggestions to their legislators. We will have a briefing for the LCP's (legislative contact physicians) at IMS headquarters in West Des Moines in March. On that occasion we will highlight those issues receiving attention in 1979.





by R. M. CAPLAN, M.D.

THE EXOTIC DANCER, THE STRIPPER AND THE ECDYSIAST

Look it up in a "Thesaurus of American Cities" and what would you find: the spirit of America, that's what — vigorous, sick, lusty, noisy, disappointed, exalting, crowded, guilty, jubilant, shameful, fertile, criminal. A living, squirming version of Pinocchio's Pleasure Island, or Sodom recreated.

And hospitable? Oh my yes. Well, unless one uses Emerson's definition of hospitality: "A little good food, a little good drink, and an immense amount of silence." With Emerson for his teacher and model, little wonder that Thoreau wrote, "I would rather sit on a pumpkin and have it all to myself than be crowded on a velvet settee." They would not have been happy there, those two. But maybe fascinated, in head-shaking disbelief.

What is to learn from the place? A new meaning for an old word (exotic). A new word invented by H. L. Mencken (ecdysiast). A chance to watch, in the making and already made, the ravages of tobacco and alcohol. The ravages of V.D. are only to be inferred; theoretically there are none, since prostitution is legal, monitored, and therefore healthy if not healthful.

The man plodding through the casino with the

walker, his right arm limp and hand contracted. Excessive play at the slot machine, obviously. If the left-handed minority wins its battle for equal facilities, then he will be able to attain an equally limp left arm. Incredible that it is exclusively the right arm that has been amoutated from all those bandits.

Boredom an inch thick on the faces of most of the dealers and the croupiers. Accomplished, swift and accurate, but with the same lack of animation and delight one finds on the faces of all the assembly-line workers of the world.

A new medical school growing in the town, expanding its clinical facilities there. Will its medical education be any different than that taught elsewhere? Should it be, when the major industries are gambling, tourism, mining and ranching? The doctors from there go to Chicago and listen to the same lectures as the doctors from Miami or Syracuse. Does that mean the continuing education needs are the same? Is there any way to find out what those needs are, other than hit and miss? That's my technique for blackjack, roulette, slots, craps, keno and any of the others. I'd like to do better than that with continuing education — both my own and what I arrange for others.

Remember what I wrote last month about going away to meetings? Here's your challenge: Where have I been? Did I win? (If you score less than 2 on this quiz, do not pass go, but enroll in a course in reading comprehension.)

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Total Body Scanner in a Community Hospital

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Dubuque, Iowa

The experience of a community hospital with its CT installation is described. Considered is the planning process and the operation through the first 1000 scans. Attention is given to the efficacy and effectiveness of the CT scan for head and body through a retrospective review.

IT IS NOW WELL DOCUMENTED that CT of the head has surpassed other diagnostic modalities as the most accurate, non invasive and convenient tool available in the clinical evaluation of neurological and neurosurgical patients. The whole body computerized tomography is gaining acceptance in the evaluation of the pancreas, retroperitoneum, abdominal mass, pelvic mass, and also metastatic work up of the liver. In addition, it is used in evaluating mediastinal and pleural disease processes. It has also been evaluated for its contribution in the diagnosis of spinal cord and disc disease. The CT for abdominal trauma is being studied and has been gaining acceptance for

evaluation of intraperitoneal as well as retroperitoneal hematoma.

It is our purpose to evaluate the application and utilization of whole body computerized tomography in a hospital that serves a community of 200,000 persons. Following local health planning committee approval, the whole body CT scan installation, allowing for the state HSA's final approval, took one and a half years to move from inception to installation. This included a repeat application for updating the equipment to provide a more current second generation scanner of Delta 50 FS from the Ohio Nuclear with 18 second capacity.

Our community of 65,000 population includes a drawing area of 200,000 people in three states: Iowa, Illinois, and Wisconsin. The closest scanner is approximately 60 miles south with two tertiary University centers 90 miles to east and southwest, namely, the University of Wisconsin and the University of Iowa.

AGE DISTRIBUTION

The age distribution of the study varied with the highest population in the category of 50 and over for both body and head scans. The monthly average of the examination is approximately 200 and the distribution averaged out to approximately 25% body and 75% head and has stabilized at that ratio.

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THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF DECEMBER 1978.

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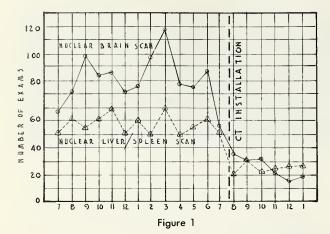
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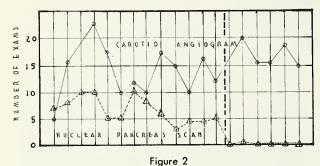
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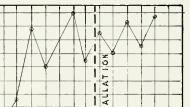
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7 & 9 IO II I2 I 2 3 4 5 6 7 8 9 IO II I2 I 977 Figure 3

EEG

The impact of the CT scan of the body and head on other diagnostic modalities is illustrated (Figures 1-3). There is a definite decrease in nuclear brain scans from a high of 130 per month to a current level of 20 per month. Liver and spleen scans also have been affected significantly with over a 50% decrease in the number of examinations. Nuclear pancreas scans have been almost eliminated since the CT scanner was installed. The number of carotid angiograms has not changed, partially due to lesions discovered in the CT scan which subsequently suggested additional angiogram, thus producing a slight increase in

utilization and this has been the experience of other institutions.^{2, 3} We have seen the same phenomena with respect to EEG's.

As discussed in the guidelines in the utilization⁴ of the CT scan of the body, we did not expect any significant impact on the chest, GI, barium enema, or IVP examinations, and indeed this was the case. The results of head and body scan diagnosis vary depending on the institution, however, our results reveal the CT definitely reduced the duration of hospitalization and also allowed early detection of head and abdominal trauma, especially intracranial and abdominal masses. The CT also localized the masses allowing for percutaneous biopsy and future therapy planning.

For all scans, every attempt has been made to obtain an accurate history and pre-scan diagnosis. In both the head and body scans, there were multiple reasons for CT evaluation. Tables 1 and 2 show the decreasing order of the pre-scan diagnosis given for head and body, respectively. Some studies were repeated, especially in trauma cases. The three most common etiologies for CT evaluation of the head were headaches, trauma, and infarcts and the three most common causes of the CT evaluation of the body were abdominal mass, liver mets, and pancreatic mass.

Evaluation of the post-scan diagnosis (of CT) of the head shows (Table 3) cerebral atrophy, infarcts, intracerebral and extracerebral hematoma, and cerebral mass were the first four predominant diagnosis. Distribution of the age of the patient could be the reason for the cerebral and cerebellar atrophy being first on the list. On the

TABLE I
PRE-SCAN DIAGNOSIS FOR CT OF THE HEAD

Diagnasis	Percent
Headaches	. 19.4
Past trauma	. 16.8
Infarct	. 13.6
Seizure disarder	. 6.8
Syncape	. 6.3
Metastases	. 5.9
Past ap	. 5.1
Indeterminate lesian	. 4.4
Dementia	. 3.5
Cerebral mass	. 3.1
AVM ar SAH	. 2.3
Retardation	. 2.0
Orbital lesian	. 1.5
Parkinsan's	. 0.9
Pseuda tumar cerebri	. 0.5
Organic brain syndrome	. 0.4
Miscellaneaus	. 6.7

other hand, the liver lesions which included metastases, primary liver tumor, and jaundice were first on the list with retroperitoneal mass and pancreatic mass following distant second and third in our cases (Table 4).

In both the head and body scans, as noted in Tables 3 and 4, only 26.2% and 31% of the head and body scans were completely normal in comparison with chest x-rays showing 75% normal on daily examination. This, we feel, shows a definite selection process on the part of the clinician in our community and believe the utilization of a CT scan was indicated in most examinations.

It has been shown, through examinations of clinical charts, and surgical findings, there is significant correlation in CT diagnosis especially with respect to cerebral infarct, trauma, involving the intracerebral and extracerebral hematoma.

For CT brain scans comparison studies with other modalities were made using data from Nuclear brain scan, carotid angiogram and the EEG's. Approximately 90 patients had both a CT and a Nuclear Scan either prior or subsequent to the CT scan. The comparison showed of these 90 patients, 22.2% had positive diagnosis both in CT and radioactive nuclear exams and 22.2% had negative diagnosis in both exams. However, 53.4% of the patients showed negative Nuclear Scan and positive CT scan. These include cerebral mass, infarct, atrophy, etc., revealed in the CT exam but not detected on Nuclear Scan. Similar studies were carried out for 44 carotid angiogram patients who had CT scan of the head either before or after the CT scan. Of these patients, 50% showed abnormalities in carotid angiogram and these abnormalities included vascular lesions. tumor and hydrocephalus including stenosis in the neck. Three out of 44 patients had carotid stenosis involving the neck vessels and CT scan of the head was normal.

There were 278 patients with both EEG's and CT scans of the head. Sixty-two out of 112 patients had normal EEG's and normal CT scans. Some of the abnormalities were minor in nature. Six of 37 patients who had Delta I or II EEG showed normal CT scan of the head. Seventeen out of 50 patients with Dys I showed normal CT scan. Twenty-two out of 79 patients who had EEG recordings of Dys II and III had normal CT findings.

Charges for the CT scan were originally determined by assuming 900 exams for the year. Because the utilization was significantly higher, we subsequently decreased the total charge to 80% of the original estimates.

TABLE II
PRE-SCAN DIAGNOSIS FOR CT SCAN OF THE BODY

Liver mets 23.0 Primary abdaminal mass 20.7 Poncreotic mass 11.7 Trauma 8.5 Jaundice 5.4 Mediastinal mass 4.7 Kidney mass 4.7 Spinal lesian 4.7 Retroperitoneal mass 4.3 Pelvic mass 2.7 Poncreatitis 1.9 Biapsy 1.5	Diagnosis	Percent
Poncreotic mass 11.7 Trauma 8.5 Jaundice 5.4 Mediastinal mass 4.7 Kidney mass 4.7 Spinal lesian 4.7 Retroperitoneal mass 4.3 Pelvic mass 2.7 Poncreatitis 1.9 Biapsy 1.5	Liver mets	23.0
Trauma 8.5 Jaundice 5.4 Mediastinal mass 4.7 Kidney mass 4.7 Spinal lesian 4.7 Retroperitoneal mass 4.3 Pelvic mass 2.7 Poncreatitis 1.9 Biapsy 1.5	Primary abdaminal mass	20.7
Jaundice 5.4 Mediastinal mass 4.7 Kidney mass 4.7 Spinal lesian 4.7 Retroperitoneal mass 4.3 Pelvic mass 2.7 Poncreatitis 1.9 Biapsy 1.5	Poncreotic mass	11.7
Mediastinal mass 4.7 Kidney mass 4.7 Spinal lesian 4.7 Retroperitoneal mass 4.3 Pelvic mass 2.7 Poncreatitis 1.9 Biapsy 1.5	Trauma	8.5
Kidney mass 4.7 Spinal lesian 4.7 Retroperitoneal mass 4.3 Pelvic mass 2.7 Poncreatitis 1.9 Biapsy 1.5	Jaundice	5.4
Spinal lesian 4.7 Retroperitoneal mass 4.3 Pelvic mass 2.7 Poncreatitis 1.9 Biapsy 1.5	Mediastinal mass	4.7
Retroperitoneal mass 4.3 Pelvic mass 2.7 Poncreatitis 1.9 Biapsy 1.5	Kidney mass	4.7
Pelvic mass 2.7 Poncreatitis 1.9 Biapsy 1.5	Spinal lesian	4.7
Poncreatitis 1.9 Biapsy 1.5	Retroperitoneal mass	4.3
Biapsy	Pelvic mass	2.7
• •	Poncreatitis	1.9
	Biapsy	1.5
Abscess 1.4	Abscess	1.4
Others	Others	4.3

TABLE III
POST SCAN DIAGNOSIS OF CT OF THE HEAD

Diagnasis	Percent
Atraphy (cerebral/cerebellar)	21.8
Vascular lesian (infarcts, AVM, SAH, aneurysm)	19.3
Trauma (intracerebral or extrocerebrol hemotoma)	11.5
Cerebral or cerebellor mass	7.3
Past ap changes	4.3
Gliosis and leucoencephalapathy	2.6
Pseuda tumar cerebri	1.9
Orbital lesian	1.2
Others	2.4
Normal	26.2

TABLE IV
POST SCAN DIAGNOSIS OF CT OF THE BODY

Diagnasis	Percent
Liver mets and mass abstruction	14.2
Renal mass and cyst	9.4
Pancreatic mass and poncreatitis	8.3
Retraperitaneal mass	8.0
Pleural and mediastinal tumar	6.9
Pelvic mass	6.5
Spinal stenasis	3.2
Trauma	1.0
Narmal	31.0
Other	11.5

SUMMARY

The total body CT scanner is an important addition to our community for an early accurate diagnosis of the patient referred to us. The utilization of this newer modality will save health care costs, by eliminating some of the less productive diagnosme.

nostic modalities and by decreasing the hospital stay. From these we conclude that the CT scan of both head and body are indicated in our hospital to better serve the patients and doctors within our community.

ACKNOWLEDGEMENT

The author wishes to thank the Sisters of Mercy and Mrs. S. McDermott

and her technical staff for their cooperation in compiling the data presented in this article.

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APNEA, MONITORING AND SIDS

Recent research into the causes of sudden infant death syndrome (SIDS) has generated a series of possible etiologies. However, none of the available theories can explain totally all or most of the findings in SIDS. It should be remembered this syndrome is nearly always diagnosed after the fact, that is, after death has occurred. Since it has not been possible to identify beforehand the infants who will die suddenly, no preventive measures are currently available. However, in certain groups of infants with prolonged apnea, and those with the so-called "near miss" infant death syndrome, multiple etiologies have been found. These include seizure disorders, severe infections, severe anemia, gastrointestinal reflux, hypoglycemia, and impaired breathing. The prolonged apnea, if unrelieved, could result in death.

For those infants with prolonged apnea and "near miss" sudden infant death syndrome, a 24hour surveillance is critical. The settings for intensive observation should include appropriately staffed and equipped acute care hospitals, infants' homes, long-term care facilities, and foster homes. These facilities should have skilled caregivers who are able to provide continuous obser-

vation and management.

Before electronic monitoring at home is rec-

ommended, the following steps should be followed:

- 1) The diagnosis of "near miss" SID or periodic apnea should be confirmed with specialized laboratory testing where necessary and consultations with medical experts.
- 2) Medical supervision and training in cardiac and respiratory resuscitation for parents and care-givers should be instituted.
- 3) The cost (psychological and monetary) should be taken into account.
- 4) Medical management and follow-up should be provided in the community.
- 5) A psycho-social support system for the familv should be identified.

There are disagreements among medical experts on the advantages and disadvantages of electronic monitoring of heart and respiratory rates. Physicians should be aware that even with adequate electronic monitoring and observation by trained personnel, a successful outcome for these babies may not always be guaranteed. Also, the psychological impact on members of the family of a child with prolonged apnea spells or "near miss" sudden infant death should be taken into account. This is especially important in recommending electronic equipment for the home.

For further information contact the Iowa SIDS Program, Iowa State Department of Health, Lucas State Office Building, Des Moines, Iowa

50319, 515/281-4904.

HONOR LOUIS GOLDBERG, M.D.

We have learned that the seventh volume of Progress in Clinical Cancer, edited by Irving M. Ariel, M.D., is dedicated to our former colleague, Louis Goldberg, M.D. Dr. Goldberg practiced in Des Moines from 1936 until his untimely death in 1975. As a family physician, he was a "member of the first line of offense in the diagnosis and treatment of cancer, and in the quest to conquer it." In that quest Dr. Goldberg became a close friend of Dr. Ariel of the Pack Clinic in New York City. It is an honor well-deserved by Dr. Goldberg, a man who had a profound reverence for life, a modest, self-effacing individual. — M. E. Alberts, M.D.

Your malpractice insurance is no place to gamble



The Use of an Inflatable Prosthesis For Treatment of Impotent Men

BERNARD FALLON, M.D., LEO A. MILLEMAN, M.D., and DAVID A. CULP, M.D. Iowa City, Iowa

Reported here are 12 patients who have had silastic cylinders implanted to form a penile prosthesis. This approach is regarded by the authors as a significant addition to treatment armamentarium for impotency.

THE FIRST USE of a silicone prosthesis for organic impotence was described in 1964 by Lash and associates. In 1967, Pearman described another Silastic penile prosthesis. These two types of prosthesis were inserted in the penis between Buck's fascia and the tunica albuginea of the corpora cavernosa and were based on the pubis (Figure 1). A further development of the solid, flexible prosthesis was the Small-Carrion procedure, initially described in 1975. This involved implantation of a flexible rod of silicone into each corpus cavernosum through a perineal incision, producing what is, in essence, a permanently firm penis, suitable for vaginal penetration (Figure 2).

In 1973, Scott and associates described an inflatable penile prosthesis which has been used at The University of Iowa Department of Urology for treatment of impotence since January 1977.⁴ This consists of two inflatable silastic cylinders, one of which is placed in each corpus cavernosum, and which may be inflated by transfer of fluid from an abdominal wall reservoir through a pumping

system located in the scrotum (Figure 3). Twelve patients have had this prosthesis inserted in our department with follow-up ranging from one to 12 months.

INDICATIONS FOR SURGERY

Our patients ranged in age from 27 to 66 years (Table 1). The etiology of impotence is shown in Table 2. We foresee a continuing trend in which a majority of patients treated with this prosthesis are those who have diabetes or those who have been successfully treated for adenocarcinoma of the prostate. Another group of patients ideally suited for implantation of a prosthesis are victims of pelvic fractures, rendered impotent either by the initial trauma, or by the ensuing treatment of membrano-prostatic urethral stricture. These three groups account for 11 of our 12 patients, and there can be little disagreement about the justification for treatment.

In general, great care must be exercised in using the prosthesis for treatment of psychogenic impotence. However, if patients have successfully undergone sexual counselling, and if psychiatric evaluation and therapy have not helped their impotence problem, we believe insertion of a penile prosthesis is indicated as an important element in the supportive psychotherapy. Such patients must be screened carefully by both psychiatrists and urologists before surgery, this in an effort to anticipate their response to returned potency. Help may be needed for some time postoperatively to adjust to the new situation.

Many patients who have impotence which is clearly of organic cause will have some problems in dealing with their changed marital relationship following insertion of a prosthesis. From our series of patients, the duration of impotence (Table 3) is not the most significant factor in this prob-

Dr. Fallon is an assistant professor in the Department of Urology at the University of Iowa College of Medicine. Dr. Milleman is in the private practice of urology at the McFarland Clinic in Ames, Iowa. Dr. Culp is professor and head of the U. of I. Department of Urology.

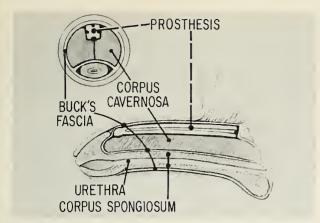


Figure 1. This illustrates the position of the Pearmon or Losh prosthesis relative to other penile structures. Note that the prosthesis is placed in the midline of the penis between the corpora covernosa and Buck's foscia.

lem. Two patients who had been impotent for the longest period of time, seven and 17 years, were among the most well adjusted in the group. Considerable counselling, however, has been necessary in two patients, impotent for two and three years, who have seemed nervous of their new potency, and have probably not taken full advantage of their prosthesis. Liberal consultation with the Department of Psychiatry and sex counselors is obtained to assist in selecting and managing such patients. The patient's wife or sexual partner should be thoroughly involved in all stages of discussion.

THE OPERATIVE PROCEDURE

The surgical procedure for insertion of the inflatable prosthesis is not excessively demanding. Incision is made along about four inches of the lower abdominal midline extending up from the base of the penis. A space is created behind the rectus muscle for the reservoir portion of the device. Another space in the right hemiscrotum accommodates the pump. The corpora cavernosa of the penis are incised for about 2 cm at the base. They are dilated proximally and distally and the cylinders inserted. The device is filled with a 25% Hypaque solution to facilitate later radiographic visualization (Figure 4). The various portions of the device are connected and the incision closed. The entire procedure takes approximately one and one-half to two hours.

The patient is admitted one day pre-operatively and remains in the hospital approximately seven (7) days post-operatively during which time he must learn to manipulate the scrotal pump responsible for inflation and deflation. Intercourse

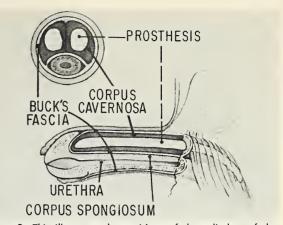


Figure 2. This illustrates the positions of the cylinders of the Small-Corrion prosthesis or of the inflotable prosthesis presently described. Note the cylinders are placed within the corpor and fill the corpora from their anterior end at the glans penis to their posterior limit at the ischiol tuberosity.

can be resumed when all scrotal and penile tenderness has resolved, about three weeks postoperatively.

COMPLICATIONS

Four of our 12 patients have had significant complications (Table 4). The one man in whom the prosthesis was removed presented with scrotal pain and swelling some six weeks postoperatively. In spite of multiple courses of antibiotics, he developed an abscess which led to removal of the device six months post-operatively. The infection healed rapidly following this.

In the other three cases, minor secondary procedures were carried out to repair defects. Diagnosis of the complications is facilitated by the contrast medium used to fill the prosthesis, thus enabling the secondary operation to be aimed

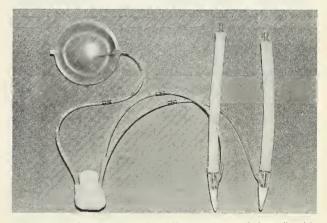


Figure 3. This illustrates the different pieces of the inflotable penile prosthesis. Above left: The reservoir for the radiopoque fluid. Below left: The pump which is placed within the scrotum and also has a defloting mechanism. To the right: The two cylinders to be placed within the corporo.



Figure 4. Plain x-ray of the inflatable penile prosthesis in situ. Note the radiopaque density in the pelvis which is the reservoir posterior to the rectus muscles. Also seen are the pumping portion and the penile cylinders. Note also the tubing between the different portions and the steel connectors.

directly at the faulty portion of the device rather than being an exploratory procedure.

DISCUSSION

The impotent patient has a right to a sex life. A

TABLE 1 AGES OF PATIENTS

20-30 Yeors Old		1
31-40 Yeors Old		2
41-50 Years Old		5
51-60 Yeors Old		2
61-70 Yeors Old		2
Meon		46
median	• • • • • • • • • • • • • • • • • • • •	

TABLE 3 DURATION OF IMPOTENCE

																																														_
Yeor																																														2
Yeors																																														4
Yeors																																														3
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man's age should not be a major factor in the decision to implant a penile prosthesis. Most important are his psychological adaptability and his continuing interest in sexuality. The desires of his partner must also be well understood and carefully considered.

In presenting the therapeutic possibilities to the patient, we discuss the alternatives of an inflatable prosthesis or the semi-rigid Small-Carrion device. Most patients choose the inflatable prosthesis, mainly because of its ability to produce a much better simulation of a natural erection, and because, after deflation, there is no noticeable bulge in the patient's clothing.

The mechanical complication rate is continuing to decline annually since the inflatable device was first produced. Engineering advances have now brought it down to about 10%.

The most significant medical complication is infection, which will probably always require removal of the device. Even in diabetics, however, the incidence of infection is not prohibitive.

We believe the inflatable penile prosthesis is a significant addition to the treatment armamentarium for impotent men and possibly is the best device presently available.

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TABLE 2 ETIOLOGY OF IMPOTENCE

		_	=	_	=	=	_	-	=	-	-	-	_	-	=	=	=	-	-	-	_	_	=	=	_	-	_	_	=
Diobetes mellitus																													
Pelvic frocture .																													
Rodicol prostote	ctomy																												
Turp ond orchied	tomy																												
Psychogenic			٠.																										
Total																													1

TABLE 4 COMPLICATIONS

Complications	Outcome				
Scrotol obscess	Device removed				
Tubing kink	Release of kink, secondary procedure				
Broken tubing	Repoir of junction, secondary procedure				
Insufficient fluid	Reinflotion, secondory procedure				

Knee Arthroscopy

PETER D. WIRTZ, M.D.

Des Moines, Iowa

Improvement in arthroscopes aids in perplexing knee diagnoses. Small size arthroscopes are available with fiberoptics.

ARTHROSCOPY is the internal visualization of a joint. With the improvement of arthroscopes, arthroscopy as a diagnostic aid to knee problems has become more valuable to clinicians. Because the optical and light transmission capabilities have been improved, a small size arthroscope is available with fiberoptics. The early Watanabe arthroscope diameter was 6-7 mm whereas recent arthroscopes measure down to 2.2 mm (Figure 1). As the arthroscope diameter has diminished, the need for general anesthesia for this procedure has shifted to local anesthesia in the majority of cases. The knee joint is the most often visualized but the smaller arthroscopes have visualized the

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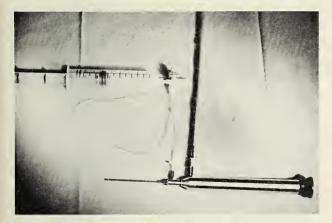


Figure 1. The Dyonics Needlescope $^{\circledR}$ with light source and irrigation system.

internal structures of the shoulder, elbow, wrist, hip, and ankle joints.

Knee arthroscopy as a diagnostic aid does not preclude any other diagnostic procedure. The history of the knee problem, the examination of the knee, and routine x-rays remain as the primary evaluation. If a posterior arthroscopic approach is difficult, the use of arthrography as an adjunct to arthroscopy is beneficial in the posterior medial aspect of the knee. The indirect visualization of the knee joint reveals the meniscii, the anterior cruciate ligament, the articular surfaces, and the synovial lining of the joint (Figure 2). Abnormalities of these structures are readily evident.

Many perplexing knee diagnoses are aided by





Figure 3. Needlescape® visualizing the medial campartment.

arthroscopy. A lateral meniscal tear producing medial symptoms is easily visible and therefore localizes surgery to the lateral compartment. Bilateral meniscal lesions appear occasionally and treatment is directed to the symptomatic meniscus. Peripheral meniscal tears are viewed and the meniscus can be manipulated with the scope or a probe to reveal any separation. Posterior peripheral meniscal tearing is often associated with easily recognized complete or partial anterior cruciate tears.

Articular surface degeneration of the area and the severity is aided with methylene blue as it coats the surface degeneration. Patellar degeneration is evaluated in chondromalacia and femoral-tibial degeneration is evaluated for possible surface replacement. Loose bodies may be removed through small incisions or larger operating arthroscopes. Synovial lesions can be evaluated for etiology by direct vision or a biopsy.

Knee arthroscopy is done in a sterile field. Following local anesthesia, the joint is distended with normal saline to facilitate scope introduction (Figure 3). Care after arthroscopy requires an elastic wrap for one to two days for the puncture wound pain. The joint motion is not restricted and there is no quadriceps inhibition from this procedure so full activity may return in one to two days.



Survival With Bowel Cancer in Iowa

JOHN W. BERG, M.D. lowa City, Iowa

Data on bowel cancer in lowa is provided. Little difference was observed in operative mortality from hospital to hospital. Detecting presymptomatic bowel cancer affords the best chance of cure.

TAKEN TOGETHER cancers of the colon and rectum are the most common American cancers. During 1969 there were 1,527 bowel cancers registered in Iowa. Of these 90 occurred in patients who refused treatment or who were felt by their physicians or family to be physically or mentally unsuitable for treatment. Another 77 were excluded from analysis because so little data was given as to either the stage of disease or whether treatment was provided. The table summarizes data on the remaining cases. The stage distribution and survival experience is about the same as the national figures reported by the End Result Group, and the better survival reported for Iowa women with breast and cervical cancer was not reproduced.

Symptoms and reported delays were studied in detail. There was no correlation between the length of time any type of symptom had persisted and the stage of disease or the survival rate. The only patients who bettered the 40-45% 5-year survival rate were those whose cancers were found on a routine physical examination or during an abdominal operation for some other reason.

Dr. Berg was director of the Iowa Cancer Epidemiology Research Center when this material was prepared. He is now associated with the Colorado Regional Cancer Center. He has been succeeded in Iowa by Richard Gallagher, M.A. This study is supported by contract #N01 CP 43200, NCI.

This small subgroup had a 67% 5-year relative survival rate even when cancers in polyps were not counted. Some of these cases were detected by stool guiac, some by sigmoidoscopy, and some by x-ray. It was concluded that bowel cancers are like cervical cancers: by the time they produce enough symptoms to get patients to a physician over half are incurable by surgery. Only when one can deal with presymptomatic bowel cancer do the chances of cure rise toward more desirable levels.

Operative Mortality: For the 1,189 patients treated by surgery there were 76 deaths in the postoperative period due to operative complications or to conditions (usually cardiovascular) ap-

TABLE I STAGE AND SURVIVAL FOR BOWEL CANCERS IN IOWA, 1969 *

	Cases		Relative Survival†	
Stage Na.	(%	%	
In a palyp	100	7	100	
Other lacalized	409	30	77	
Regianal extension	162	12	50	
Nade metastases	237	17	43	
Resectable—not otherwise staged	110	8	63	
Distant extension :	59	4	14	
Distant metastases	283	21	2.5	

^{* 167} potients excluded. See text.

parently aggravated by the stress of surgery. Of course the overall rate of 6.4% was determined by the age structure of the patients and the stage of disease. The rate was 2.1% for patients under 60, but 13.7% for patients 80 or older. The rates were particularly high (10.5%) if the cancer, though resectable, had extended through the bowel wall

(Please turn to page 450)

Concer deaths only

[‡] Invosion of organs such as bladder or liver or so for into soft tissues that resection is precluded.

SURVIVAL WITH BOWEL CANCER

(Continued from page 449)

into other structures (requiring a more extensive operation) or if the resection was palliative because of distant metastases (8.9%). At the same time patients with metastases treated by palliative resection lived longer than patients not so treated even after the operative deaths were taken into account. The mean survival with operation was 10 months as opposed to 5 months for the non-resected group. At 3 months 76% as opposed to 54% of the original group (112 and 171 patients respectively) were alive. At 6 months the figures were 54% and 23%, at 1 year 29% and 10%.

Surely there must have been some selection of patients for palliative resection but at least under the age of 90 the survival rates were independent of age. Finally we could find no evidence the differences in operative mortality or overall cure rates seen among the more than 120 hospitals treating these patients were greater than expected by random variation.

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IOWA MEDICAL MISCELLANY

(Continued from page 435)

FEE LEVELS... Iowa ranks 16th in the nation in Medicaid fee levels and 41st in Medicare fees, according to an article on geographical variation in physicians' fees which appeared in the September 22 issue of JAMA.

SURGICAL OPINIONS . . . HEW's much bally-hooed second surgical opinion program has prompted very little response to date in Iowa. Designated as list-developer and list-holder for the state, Blue Cross/Blue Shield reports fewer than a dozen citizen inquiries for the names of physicians to provide second opinions.

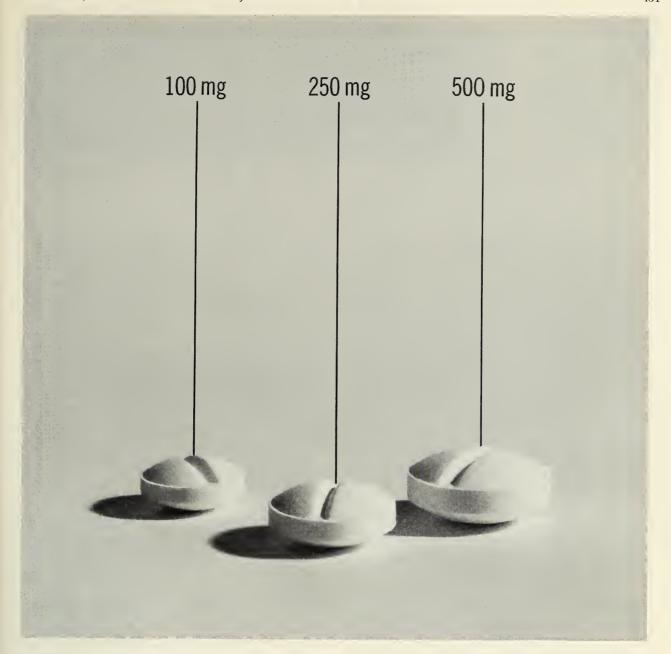
NEW HSA DIRECTOR... The new executive director of the Iowa Health Systems Agency begins his duties December 1. He is Joe S. Greathouse, who has been director of University of Missouri hospitals and clinics.

CONVENES . . . A new session of the Iowa General Assembly will convene January 8. All legislative measures begin anew with no carry over possible. The IMS Legislative Committee met November 9 to review IMS interests and priorities for the coming session. Emphasis will be on certain appropriations bills.

COUNTY MEETINGS . . . IMS President Gerard and other officers are making informational presentations to county medical societies. November briefings were presented in Linn, Boone/Story, Dubuque and Polk. Any county society wishing to arrange such a meeting is invited to call IMS headquarters (1-800-422-3070).

PA ADVISORY COMMITTEE . . . An eightmember advisory committee to the State Board of Medical Examiners has been appointed by Governor Ray to counsel on matters relating to the physician's assistant. Physician members are K. R. Carrell, D.O., Columbus Junction, and Maurice Kraushaar, M.D., Fort Dodge.

SUPPLEMENTAL LIFE INSURANCE . . . Scheduled to become available in early 1979 is an additional term life insurance coverage. Interested member physicians will have available coverage up to \$100,000 in a program to be provided by American Mutual Life and administered by The Prouty Company.



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Editorials

M. E. ALBERTS, M.D., Scientific Editor

HOME FOR CHRISTMAS

One delight of the Christmas Holidays is going home. Students travel long distances to be home for a week or so. Military personnel try for leaves to go home. Working girls in the cities flock back to their homes in the small towns and rural areas. Those in retail businesses look forward to the end of the rush and a restful day at home. Families gather together for merry-making, food and companionship and to exchange gifts. It's truly a joyous day.

We must remember, however, there are those who cannot be home for Christmas. There are many who live too far to make the journey just for a few days. There are those in hospitals and nursing homes, persons in penal confinement and many who have no permanent home. For them, Christmas is just another day, a day of loneliness, of reflection perhaps, or a day which means nothing more than any other day. As we enjoy our

families, the warmth of the fireplace, good food and the joy of exchanging gifts we should reflect on those who are less fortunate. Our thoughts must go out in a prayerful manner to wish them well. Our hope should be that next year will then bring a better life.

As you make hospital rounds Christmas morning, spend a little extra time with each patient. It will bring mutual satisfaction. Our place in life by virtue of professional and economic success permits us to enjoy many things not known by others. We will likely spend most of the day with our families. We should not begrudge the time we share with our patients. Time is a fleeting thing. Tomorrow dictates that today's opportunities are forever gone.

It is our wish that this Christmas Season will be a joyous one for all our readers. We wish you the best of the Holiday Season in the spirit and meaning of the Day. May the New Year be filled with happiness and a renewal of the purpose of our lives upon this earth.—M.E.A.

UTILIZATION REVIEW

What is it? - Who needs it?

What is it? It is the review of utilization of hospital beds and of laboratory and x-ray procedures. Over-utilization is expensive and unproductive. It is caused by misunderstanding the idea of acute care and hostility toward the concept. Over-utilization of laboratory tests and x-rays is rationalized as a defense against malpractice claims or as support if malpractice is claimed.

Who needs it? We all need it and have for some time. Patient, doctor, and payor helped create

this need. Have we been guilty of ignoring the high cost of all we order? Have we been guilty of equating medical needs with hospitalization needs? Have we been guilty of not trying to understand the difference between acute care and skilled care?

In the areas of laboratory tests and x-rays, have we been guilty of getting just "one more test" to nail down an already confirmed diagnosis? Have we been guilty of "flawed logic" in thinking that "if I get enough tests I'll never be sued for malpractice?" We have to remember that we can't guarantee an exact diagnosis and cure each time no matter how many tests we order. To say that "if I

order enough tests I'll never be wrong" is a fallacy. We would need utilization review even if we didn't have insurance or government involvement. We have an obligation to use only what we need without waste. We can blame anyone we want to but we can't avoid the responsibility. We need to be as careful about what we order as we are about the rest of patient care.

I think we have to realize that our role in medical care is changing. It was different when every patient was responsible for his own bill. Both doctor and patient were vitally interested in being frugal. When we accepted third party payment

we also accepted responsibility to the payor of being frugal. We must do this and still practice good medicine. It is not responsible stewardship to use hospital beds to "run a few tests" and then order tests entirely unrelated to the diagnosis. We have this responsibility to the government, too, when it is the third party payor. I think we must realize the money we waste is our own.

It is our duty to be honest in our utilization of beds and tests. We owe it to ourselves, our profession, our patients, and our government because we are, after all, all of these. — DENNIS WALTER, M.D.

PREPARATION FOR SCHOOL

Parents frequently seek aid from their family physician or their pediatrician about the school problems which confront their children. When a child is unable to adapt to the school routine and its demands there is often great stress upon the entire family. Parents are made to feel guilty and the child feels inadequate, frustrated or defensive because of the demands of the teachers.

I am concerned about the expected role of preschool nurseries, academies or day-care centers (whatever name we care to call them) by the public schools. In the past, kindergarten was the first introduction to formal learning. Now, many children attend pre-school centers or participate in formalized learning one to two years before entering kindergarten. Many children, of course, do not go to pre-schools. What then shall be the role of the pre-school?

Recently, a mother expressed to me a valid concern about a confrontation she had with her child's kindergarten teacher. It seems the child is a bit awkward in using scissors and the teacher suggested the mother should feel guilty because she had not provided her child with a year or two of pre-school preparation. The implication was plain that a number of skills were beyond the ability of this kindergartener because the child had been inadequately prepared for school.

This is an inappropriate pressure to place on the child or parent. Childhood is short enough without speeding the education process. One aspect of life — in addition to education — is social awareness. Before learning the basic "three R's," the

child must learn to be a cooperative member of society (and initially his small peer group) and learn the give and take of social interaction, as well as the functions of manners, social grace and consideration for the rights of others. These should be learned at home preferably and augmented perhaps in a nursery school. Then, when a youngster enters kindergarten, the skills of creative crafts, writing, spelling, simple mathematics can be pursued with greater earnest, and further development of the awareness of social responsibility can be fostered. The first two or three years of school, in my opinion, can make or break a child in terms of his future education. If he is made to feel inadequate due to a lack of formalized preschool the incentive to enjoy the great adventure of education may be destroyed. If the public schools believe that children should have a preschool education before entering kindergarten that must be made clear, and such provision must be made. However, it seems more appropriate for most children to learn to live in society for the first five years of their lives prior to the next step in education.

More and more children are in day-care centers because of the desire or need for the mother to be employed. In some social strata it is expected that four-year-old children be enrolled in a good nursery school. Churches and other organized groups have gotten into the pre-school business. Let them help the child to learn to get along with their peers and those in authority. Let the children be introduced to the complexities of social living. Let the children play, and enjoy life. Then, upon entering kindergarten, they can begin to learn to write, and read, and cut paper with scissors. — M.E.A.

NOTE DROP IN MEDICARE HOSPITAL DAYS

PHYSICIANS are doing a good job with hospital utilization based on figures released recently by the Iowa Foundation for Medical Care. Days spent in Iowa hospitals by Medicare patients decreased between 1976 and 1977, according to findings promulgated by the IFMC in November.

In 1977, the number of Medicare patients days recorded by Iowa hospitals totalled 1,504,060. This data is supplied by the Office of Policy, Planning and Research in the Department of Health, Education and Welfare. By comparison, the 1976 Medicare hospital days summed to 1,624,510. Of significance then is a reduction in hospitalization amounting to 120,450 days.

This seven percent reduction in hospital days for Iowa Medicare patients is more meaningful when you know there were 6,382 more persons eligible for benefits in 1977.

Variations in hospital costs make the projection of any dollar savings a bit uncertain. However, with hospital costs averaging \$150 per day, this represents a significant amount not spent on hospitalization. This is a satisfactory response by Iowa physicians and hospitals to the economic challenge of our times.

The decrease of 120,000-plus hospital days is attributable primarily to reduced lengths of stay. The average length of hospital stay by an Iowa Medicare patient dropped from 10.7 days to 10.0 days. While fractionally quite small, the difference, when related to the total number of Medicare patients, is, as has been stated, quite significant. Also contributing to the reduction in Medicare days was the 758 drop in patients admitted to acute care hospitals in 1977.

For comparative purposes, it may be of interest to note the average length of stay across the age spectrum is 7.0 days nationally and 6.3 days in Iowa. It is obvious and logical that Medicare patients have longer hospitalizations.

The Foundation believes high quality care is being delivered even though a decrease in Medicare hospitalization has occurred. The goal of quality is being pursued as ambitiously by the Foundation as is any effort to shorten hospital residence.

We have limited our discussion here essentially to Medicare. In this realm, the Foundation functions as the Iowa Professional Standards Review Organization (PSRO). As the physician-operated PSRO, the Foundation monitors the care provided governmentally-supported (Medicare, Medicaid, etc.) patients. It does so through a PSRO network which includes all 133 Iowa hospitals.

The essential element of quality is being pursued actively and variously by the IFMC/PSRO. For example, medical care evaluation studies continue to be an important dimension of the hospital review program. The number of MCE's to be undertaken by a hospital in a year ranges from 4 to 12 depending on number of admissions.

Hospital medical staffs have latitude in identifying areas of interest or concern. Once a concern is identified, the medical staff can devise a desired criteria, then this may be examined against existing custom or practice. The obvious goal of this comparison is to identify areas where care may be made more effective and efficient.

In 1977, the first full year of PSRO operation, the IFMC indicates 101 hospitals identified more than 1,000 areas of concern; correspondingly, nearly an equal number of programs have been undertaken to address the problems.

What subject areas have been studied? Emergency department care, use of anesthesia, treatment of bacterial pneumonia, etc. As a consequence of these efforts, physician education programs have been conducted, administrative policy changes made, medical records/forms updated, etc.

What we have said here applies mainly to the PSRO function of the Foundation. Its service extends beyond. Review of medical activity is provided to private insurance companies, to hospitals for private patients, etc. The total work is important, it is valuable, and it is not available elsewhere.

IN THE PUBLIC INTEREST

State Department of Health

MENINGOCOCCAL DISEASE PROPHYLAXIS

Cases of meningococcal diseases occur only sporadically in the United States and Iowa, but the suddeness and severity with which they strike and their epidemic potential frequently produce considerable anxiety in contacts of patients. Physicians should be careful to properly assess these situations before recommending prophylactic measures. Initially the patient diagnosis should be confirmed by Gram stain of cerebrospinal fluid (CSF), isolation from blood or CSF cultures, or counterimmunoelectrophoresis of blood or CSF. Management of contacts is facilitated by a confirmed diagnosis.

CHEMOPROPHYLAXIS OF CONTACTS

Immediate chemoprophylaxis is recommended for all persons in the high risk category, especially household contacts. This follows from the fact that most persons who develop meningococcal disease have acquired the organism from a carrier, not from a patient. Carriers themselves may have some immunity and are at less risk of disease. Culture surveys of contacts are not recommended since both non-carriers and carriers must be treated to prevent both acquisition and transmission. Less intimate contacts in the school and work setting do not appear to be at increased risk. Anyone directly exposed to respiratory secretions of patients (such as through mouth-to-mouth resuscitation or kissing) should also be considered intimately exposed and thus at increased risk.

Rifampin is the drug of choice for prophylaxis and should be administered without delay to decrease likelihood of secondary cases. Under certain circumstances, if the organism is known to be sulfa sensitive, this drug may be used. However, available data indicates up to 25% of isolates have

been resistant to sulfonamides. Because of the temporal proximity of secondary cases to primary ones, there is no justification for delaying prophylaxis while awaiting results of microbial susceptibility testing.

Prophylactic dosages of rifampin and sulfonamides have been established. Rifampin is administered for two days; 600 mg given orally twice a day for adults, 10 mg/kg twice a day for children 1 year to 12 years of age, and 5 mg/kg twice a day for children less than 1 year of age. The dosages of sulfonamides are 1 gm twice a day for adults, 500 mg twice a day for children 1 to 12 years of age, and 500 mg once a day for children less than 1 year of age. Treatment is continued for two days.

VACCINATION

Use of meningococcal polysaccharide vaccines should be considered as an adjunct to antibiotic chemoprophylaxis for household contacts of cases caused by Serogroups A or C. This is because increased risk of secondary family cases may persist several weeks after the primary case — long enough to yield potential benefit from vaccination if the chemoprophylaxis has not been successful. Manufacturers' instructions should be followed in vaccine administration. Studies indicate vaccines are less effective in children under two years of age and should not be administered during pregnancy.

In the community setting, routine vaccination of civilians is *not* recommended because of insufficient evidence of its value when the risk of infection is low. The serogroup-specific monovalent vaccines should be used, however, to control outbreaks of meningococcal disease caused by *Neisseria meningitidis* Serogroup A or C.

Pneumonio

Persons at highest risk of disease by virtue of age, socio-economic status or area of residence should receive priority vaccination. If there is ample vaccine, all residents in an affected area should be vaccinated.

HOSPITAL EXPOSURE

The risk of nosocomial transmission of meningococcal infection to hospital personnel can be minimized by placing patients with suspect meningococcal infection in respiratory isolation and continue until 24 hours after initiation of appropriate antibiotic therapy. Personnel who have had intimate contact with the patient's respiratory tract secretions should be provided rifampin as chemoprophylaxis or a sulfonamide if the strain of N. meningitidis is known to be sensitive.

SURVEILLANCE

Monitoring contacts for illness is encouraged. Persons under surveillance should consult a phy-

2240

sician immediately if fever and headache occur. Chemoprophylaxis, however, should be combined with surveillance, since surveillance alone is not a preventive measure but rather a method for diagnosing suspect cases, and thus is not designed to prevent disease but rather death. Even with good surveillance, death could occur with a disease as potentially fulminant as meningococcal infection. Therefore, surveillance alone is not recommended as the sole method of secondary case control. Please remember to notify public health authorities of confirmed cases of meningococcal disease.

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October 1978 Morbidity Report

	Oct . 1978	1978 to	1977 to	Most Oct. Cases Reported From		Oct. 1978	1978 to	1977 to	
Disease	Total	Dote	Dote	These Counties	Disease	Total	Dote	Dote	
Amebiosis	12	145	99	Dollos, Polk, Boone	Robies in onimols	8	111	111	
Chickenpox	93	5797	7207	Scattered					
Encepholitis, virol	7	28	NA	Allomokee, Buchanon,					
				Mitchell, Clork,	Rubello (Germon				
				Howord	Meosles)	6	64	171	
Giordiosis	5	29	49	Johnson, Dollos, Scott,					
				Muscotine, Des	Rubeolo	2	56	4306	
				Moines	Solmonellosis	15	165	241	
Hepotitis A	12	120	96	Polk, Wopello,					
				Pottowottomie	Shigellosis	20	56	50	
Hepotitis B	6	81	88	Adoms, Polk, Guthrie					
type unspecified	2	47	29	Blockhowk, Johnson					
Herpes simplex	10	80	NA	Scott, Polk, Johnson,	Tuberculosis				
				Lucos	totol ill	5	122	74	
Infectious mono.	103	985	944	Scottered					
Meningitis					bact. pos.	4	67	62	
oseptic	2	47	29	Blockhowk, Polk	Venereol diseoses:				
bocteriol	11	67	5	Jockson, Scott,	Gonorrhea	509	4479	4898	
				Dubuque, Polk,	P. & S. Syphilis	0	28	37	
				Dallas	Syphilis—other	1 <i>7</i>	170	NA	
Mumps	15	147	1213	Des Moines, Scott,					
				Clinton, Polk,	Laboratory Virus Di	iagnasis \	Withaut .	Specified	
				Morsholl	Coxsockie B-4—Jol	nnson; 1—	–Echaviru	s Type	
Pertussis	4	15	NA	Montgomery, Buena	Echovirus Type 2 Iso	loted—Jo	hnson; 1	—Echov	
				Vista	1—Coxsockie B-4 Isoloted—Johnson: 1—C				

Scottered

Most Oct. Coses Reported From These Counties Blockhowk, Dubuque, Clinton, Plymouth, Modison Blockhowk, Buchonon, Lee, Pottowottamie Wopello Polk, Pottowottomie, Linn, Des Moines Jefferson, Scott, Johnson, Polk, Woodbury Linn, Howord, Scott Muscotine Linn, Howord, Scott Scottered NA Scottered

ed Clinical Syndrome: 1e 25 Isolated—Cedar; 2virus Type 2 Isoloted—Linn; -Coxsockie B-4 Isoloted—Johnson; 1—Coxsockie B-4 Isoloted—Scott.

About IOWA Physicians

Dr. David Adams, gastroenterologist, and Dr. William McMillan, ear, nose and throat specialist, recently joined the Ottumwa Medical Clinic. Dr. Adams received the M.D. degree at University of California; and completed his gastroenterology residency at University Hospitals in Iowa City. Dr. McMillan received the M.D. degree at University of Michigan Medical School at Ann Arbor, Michigan; and completed his otorhinolaryngology residency at University Hospitals in Iowa City. . . . Dr. Paul Huston, professor emeritus in Department of Psychiatry at U. of I. College of Medicine, was guest speaker at annual meeting of new directors and officers of the Mid-Eastern Iowa Community Mental Health Center. . . . Dr. Robert Downie, former Traer physician, has joined Associated Medical Arts in Waterloo. Dr. Downie received the M.D. degree at University of California Medical School in San Francisco; and completed his internship and residency in internal medicine at the University of California in Irvine. . . . Dr. D. J. O'Toole has joined Dr. Ronald Zoutendam in family practice in Sheldon. Dr. O'Toole received the M.D. degree at U. of I. College of Medicine; and served his internship and family practice residency at Broadlawns Hospital in Des Moines. . . . Dr. Jeffrey Lavigne, Ottumwa, has been named a diplomate by the American Board of Surgery. Dr. Lavigne located in Ottumwa in 1977.

Dr. Sant Hayreh, Mason City, was guest speaker at the September meeting of the Wright County Medical Society. Dr. Hayreh discussed the latest treatment of TIA's. . . . Dr. Frank C. Coleman, former Iowa physician currently living in Tampa, Florida, recently received the 1978 Distinguished Service Award of the American Society of Clinical Pathologists and the American College of Pathologists. Dr. Coleman was cited by the two organizations for his many contributions to American pathology. . . . Dr. Clarence H. Den-

ser, Jr., Des Moines, recently received a bronze medallion for his outstanding contributions to the progress of cancer control by the American Cancer Society, Iowa Division, Inc. The award is the highest recognition given to a volunteer by the American Cancer Society and was presented to Dr. Denser at the ACS annual meeting. Dr. Denser has been an active ACS volunteer for 10 years and is currently ending a two-year term as Division President.

Dr. R. R. Hansen, Storm Lake, recently received the Buena Vista College "Distinguished Service Award." Dr. Hansen was cited for his medical service to the community and his many civic contributions. A graduate of the U. of I. College of Medicine, he has practiced medicine in Storm Lake since 1937. . . . Dr. and Mrs. Paul T. Meyers, Bloomfield, moved to Houston, Texas, in September. A radiologist at the Gilfillan Clinic for 25 years, Dr. Meyers retired in 1975 but has continued to live in Bloomfield. . . . Dr. Leo A. Milleman, urologist, has joined the McFarland Clinic in Ames. Dr. Milleman received the M.D. degree and completed his residency in urology at U. of I. College of Medicine. . . . Drs. James Hostetter and Marcia Dennis-Hostetter recently joined the Student Health Service staff at Iowa State University in Ames. Drs. Hostetter and Dennis were formerly in family practice in Minneapolis, Minnesota. . . . Dr. Robert Thompson, Iowa City, was guest speaker at a recent meeting of the Waterloo Diabetes Association. Dr. Thompson discussed recent diabetic research. . . . Dr. Daniel B. Eggers, Waverly, has been named head of the Public Service Division of the Waverly Area United Way campaign.

Dr. Ahmad Akbari, Sioux City, is new president of the Iowa Urological Association; Dr. Curtis Clark, Ames, is president-elect; and Dr. John Sibley, Ames, secretary. . . . Dr. Richard B. Gloor recently began a practice of internal

medicine in Des Moines. Dr. Gloor received the M.D. degree at Yale Medical School in New Haven, Connecticut and completed his residency in internal medicine at U. of I. College of Medicine. . . . Dr. Alvin E. Evers, Pella, was one of four Central College alumni selected to receive distinguished alumni awards during homecoming in October. A 1936 Central College graduate, Dr. Evers received the M.D. degree at U. of I. College of Medicine. He located in Pella in 1947. . . . Dr. J. M. Vietch, Fort Dodge, was guest speaker at a recent meeting of the Wright County Medical Society. Dr. Vietch spoke on care of the fractured ankle. . . . Dr. Harold Brenton has been named president of the medical staff at the North Iowa Medical Center in Mason City; Dr. Ki T. Song, president-elect; and Dr. John K. MacGregor, secretary-treasurer. Department heads are Dr. R. Bruce Dunker, obstetrics and gynecology; Dr. Norman W. Hoover, surgery; Dr. Shivaram T. Shetty, medicine, and Dr. Charles B. Wilmarth, radiology. All are Mason City physicians.

Dr. Hester Hursh and Dr. Luke Tan, Waterloo physicians, were guest speakers at recent seminar of Black Hawk Chapter, American Association of Medical Assistants. Dr. Hursh spoke on "A Slip of the Hand," and Dr. Tan's topic was "Infant Care and Care of Children." . . . Dr. Michael F. E. Jones, Sioux City, has been named to active fellowship in the American Academy of Otolaryngology. A graduate of the U. of I. College of Medicine, Dr. Jones located in Sioux City last year following his residency at the University of Nebraska. . . . Drs. Wing T. Fung, and Robert E. Donlin, Harlan, and G. E. Larson, Elk Horn, attended a Radiologic Center Fellowship at Nebraska Methodist Hospital in Omaha in October.

DEATHS

Dr. Ralph T. Duddles, 52, Ames, died October 25 at Mary Greeley Hospital. Dr. Duddles received the M.D. degree at the University of Minnesota Medical School and interned in Oakland, California. Following a year in general practice in Iowa, he spent two years as a medical missionary in Belgium and Africa for the Evangelical Free Church of America. After returning to the United States, Dr. Duddles served University Student Health Services in California, Colorado and at Iowa State University.

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This is a unique, and challenging opportunity for a FAMILY PRACTITIONER to develop and expand a central department of Family Practice with peripheral satellites for a multispecialty group in North Iowa. Strong support from the other specialties including Internal Medicine, Surgery, Ob/Cyn, Allergy, and Dermatology is available. Attractive community of 32,000 serving needs of 200,000 area citizens. Convenient to Minneapolis, Mayo Clinic, and Des Moines via 1-35. Eight miles to Clear Lake, "Iowa's Vacation Capitol." New office building-hospital complex (August, 1978). Second hospital in community newly remodeled and expanded. Teaching opportunities. Partnership after one year. Salary generous. Vacation and Study Time. Pension Plan program. For more information, please mail your curriculum or call collect AC 515-423-4120, and ask for the "Info Pack" from Park Clinic, 116 N. Washington Ave., Mason City, Iowa 50401.

LIST YOUR WANTS

1DEAL PRACTICE LOCATION—for medical or surgical practitioner in new brick clinic building next to two extremely busy CP's. Will finish to suit. Office located in professionally uncrowded southeast side of Des Moines with booming residential growth. Excellent access and parking on high traffic street. Contact William L. Reinwasser, D.O., 2353 S. E. 14th Street, Des Moines, Iowa 50320. Phone 515/244-4141.

MEDICAL DIRECTOR, CLINICAL DIRECTOR, INDUSTRIAL HEALTH and other medical opportunities available on a national basis. Salaries commensurate with experience. Top fringe benefits. Relocation expenses, interview expenses and agency fees paid by employers. Let us help you relocate to the area of your choice. Capital Personnel Service, 814 Central National Bank Bldg., Des Moines, Iowa 50309. Phone 515-283-2545.

PSYCHIATRIC RESIDENCY: Vacancies for PC2 through PG4 positions starting January 1, 1979 through July I, 1979. For those eligible for an Iowa Residents License via the ECFMC receive stipends of: Ist year, \$21,294; 2nd year, \$22,360; 3rd year, \$23,478. Those eligible for a regular Iowa license via FLEX or reciprocity receive stipends of: Ist year, \$23,478; 2nd year, \$24,648; 3rd year, \$25,896. Prepare for a career in private practice, community clinics or hospital based psychiatry. Emphasis on close supervision of intensive individual and group psychotherapy, OPD, Children's Unit, Adolescent Unit. Neurology affiliation with University of Iowa. Intensity of training program appreciated best by personal visit. T. B. McManus, M.D., Superintendent, Mental Health Institute, Cherokee, Iowa 51012. Call collect 712-225-2594. Equal Opportunity Employer.

THREE YEAR APPROVED PSYCHIATRIC RESIDENCY PROCRAM Now appointing for an immediate unexpected opening and for July, 1979. Small intensive psychiatric hospital, JCAH approved, affiliated with University of Iowa Medical College. Comprehensive program including two adult psychiatric units, adolescent unit, children's unit, alcohol & drug abuse unit, with innovative community liaison, and OPD. Eclectic approach. Situated in picturesque northeast Iowa near large cities with cultural advantages, but in rural setting. Ideal for family living. No financial sacrifice while learning. Top salary: first year \$23,478, second year \$24,648, third year \$25,896; liberal fringe benefits; some housing available. Opportunity to join staff upon completion of training. All applicants must have completed one year in an American approved training program in internal medicine, family practice, or pediatrics or a flexible one year program, including four months in internal medicine. Write or call J. T. May, M.D., Superintendent, or B. J. Dave, M.D., Director of Education, Mental Health Institute, Independence, Iowa 50644.

FOR SALE — Used 1½ years. Half price. Hamilton exam tables (2), pediatric exam table, and treatment stand. Burdick EKC Machine with stand, Dri-Clave instrument sterilizer, Unimeter 300 lab analyzer, Select-A-Fuge centrifuge, 2 exam stools, and miscellaneous items. Des Moines, Iowa. Call 515/278-1210.

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PHARMACIST — Seeking professional clinic in which to locate. Have Masters Degree in Hospital Pharmacy. For additional information, please write No. 1532, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

OFFICE GYNECOLOCIST — Wanted for Student Health Service, University of Iowa. Salary negotiable and competetive. An Equal Opportunity/ Affirmative Action Employer. Send application and vitae to Harley C. Feldick, M.D.; Director, Student Health Service; Children's Hospital Building; Iowa City. Iowa 52242.







UNIVERSITY OF IOWA HOSPITALS AND CLINICS

NEW PATIENT REFERRAL AND INTERPROFESSIONAL COMMUNICATIONS TECHNIQUES

Communication is the key to understanding. When community physicians throughout lowa refer patients to the University of Iowa Hospitals and Clinics, optimum service to the patient, both at University Hospitals and upon return to the local community, depends upon prompt, two-way systematic communications.

In recent months, new communication techniques have been established and traditional methods streamlined. A series of regional conferences with Iowa physicians and their office staffs is currently underway to explain the innovations and to receive questions and comments from the physicians and their staffs. The information is summarized on these pages for retention and reference.



PATIENT APPOINTMENTS AND REFERRALS

The most expeditious method to secure appointments is by telephoning directly to the scheduling center of the clinical department to which the patient is being referred. For example, if the patient is being referred to the Department of Neurology, consult the Physician's Desk Reference Guide distributed by University Hospitals to obtain the direct-dial telephone number for that department's scheduling center. If the Guide is not available, telephone University Hospitals' telephone communications center at (319) 356-1616 and ask for the specific clinical department scheduling center you need. Copies of the Physician's Desk Reference Guide are available on request to University Hospital or the Iowa Medical Society Headquarters.

HELPFUL INFORMATION IN MAKING APPOINTMENTS

Telephone appointment requests can be accommodated more expeditiously if the following information is provided:

- 1) Referring physician's name.
- 2) Patient's name and current address.
- 3) Whether patient has previously received health care at University Hospitals. If so, has there been a name change as a result of marriage, etc., since that time? This information is helpful in identifying and retrieving the medical record for any previous visits.

If the time between the scheduling and actual appointment is sufficient to correspond by mail, the patient will be mailed a letter confirming the appointment date, time, and place along with a map of the University's Health Science campus and instructions for registration upon arrival. The patient's community physician also receives a written confirmation of the appointment.

A pre-registration form is also included for mail-back so that registration materials can be assembled when the patient arrives for the appointment.

APPOINTMENTS BY MAIL

Appointments for patients may be secured by writing to: Director, Admissions Department, University of Iowa Hospitals and Clinics, Iowa City, Iowa 52242. A written appointment request can be facilitated by using the University Hospitals Universal Patient Referral Form. This form requests all the information pertinent to making the appointment, regardless of the financial classification of the patient. It is not necessary to use the Universal Patient Referral Form if the appointment has been secured via telephone.

SENDING PATIENT RECORDS

As a general rule, medical records of patients referred to University Hospitals should be sent directly to the clinical department scheduling center where the appointment was secured.

Unless specifically requested by a member of the University Hospitals clinical staff, the medical records should not be sent to the staff physician, but rather to the specific departmental scheduling center where they will be coordinated with the patient's appointment schedule and other University Hospital records.

EMERGENCY PATIENT REFERRALS

University Hospitals receives patients referred for emergency services 24 hours a day. The nature of emergency referrals precludes the usual appointment and registration process, but there are important communication points which further ensure optimum service to the patient.

- 1) Notify the University Hospitals Emergency Service that your patient is enroute by telephoning (319) 356-2683. The patient's name and the nature of the illness or injury will help Emergency Service staff members prepare to serve the patient. If notification is made before the patient is enroute, consultation concerning intravenous fluids and other stabilizing actions may be helpful.
- 2) If you have previously conferred with a member of the University Hospitals clinical staff

concerning the patient, make that information known either in a note to be sent with the patient or during the telephone call to the Emergency Service. If x-rays or other patient clinical information is available, send it with the patient in the emergency vehicle.

REPORTS TO COMMUNITY PHYSICIANS

Prompt and accurate communications with community physicians are essential in meeting the University Hospitals' commitment to strong effective interprofessional relations.

A major policy statement adopted by University Hospitals Advisory Committee on January 7, 1976 states in part:

"The clinical staff of the University Hospitals will initiate and maintain communications with referring physicians and dentists for the purpose of apprising them of the continuing treatment status of the patients hospitalized at University Hospitals in order to facilitate continuity of the patient's care."

To facilitate this commitment, additional outgoing WATS telephone circuits have been installed to augment existing telephonic service in lowa and contiguous states. Clinical services have placed a high priority on emphasizing the importance of communication with the patient's physician during hospitalization and immediately

upon discharge. This includes transmittal of a written discharge summary to the referring physician within 10 days of the patient's dismissal. Upon discharge, the patient is referred to the continuing care of a home physician or dentist after having received the indicated patient education to assist in maintenance of health.

TRANSPORTATION

Although University Hospitals does not maintain an emergency ambulance service, ambulatory patients, who because of special circumstances are unable to use public or private conveyances, may utilize the Hospitals' Transportation Service. The vehicles are equipped to accommodate patients on a cot. State indigent patients may utilize this service at no cost to them. The current cost for transportation service to private patients is 32¢ per mile. Arrangements for this service may be made by telephoning the Manager of Patient Scheduling and Registration at (319) 356-1762.

NEO-NATAL INFANT TRANSPORT SERVICE

A specially-equipped hospital van is available for service within a 110-mile radius of lowa City to transport high-risk newborns to University Hospitals. The mobile infant intensive care unit is equipped with an isolette and staffed with a respiratory therapist and a nurse. Community



physicians referring critically ill infants may schedule the neonatal transport by telephoning (319) 356-1616.

AIR TRANSPORTATION

Facilities are available for receiving patients who are transported by air. Patients arriving in fixed-wing aircraft land at the Iowa City municipal airport and are transported to University Hospitals by the Johnson County Ambulance Service. Iowa National Guard helicopters transporting emergency patients land on the Health Center Campus, a few hundred feet from the University Hospitals. The Johnson County Ambulance Service moves the patient to the Hospital.

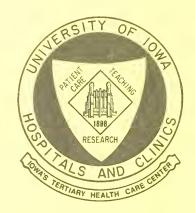
If a patient is to be transported by air, University Hospitals Emergency Service should be advised so that the Johnson County Ambulance Service can be alerted to provide ground transportation.

PATIENT FISCAL SERVICES

The University of Iowa Hospitals and Clinics and its clinical staff are organized to provide a single standard of care to all patients, regardless of a patient's financial status. Based upon the recommendation of the referring physician or

dentist, patients are assessed "full" or "partial" fees within one of three financial designations:

- 1) Private Pay: Most patients referred to University Hospitals are assigned a "private" designation. Patients assigned to this category are responsible for paying professional fees in accord with arrangements made between the patient and attending staff physicians and dentists. Such patients are also fully responsible for payment of hospital charges. Most patients in this category participate in some form of private or governmental health insurance plan and should plan to present their insurance enrollment identification at some time during their hospitalization.
- 2) Clinical Pay: Patients of limited financial means (those who do not pay full professional fees to community physicians and dentists) may be designated to this category by referring physicians. Patients so designated are responsible for all hospital charges, but inpatient professional fees beyond insurance coverage are waived by University Hospital staff physicians and dentists.
- 3) State Pay: Residents of lowa may be referred for care in this category after county authorities have issued a certification authorizing complete hospital and professional care, beyond insurance coverage, at state expense. Requests for care under this designation should be directed to the director of social welfare in the patient's home county.



The Cost Dilemma - A Matter of Perspective

What are your greatest concerns about health care? Its quality? Its availability? Its cost? They're all part of what some are calling a crisis. It's a challenge for all lowans — physicians and patients!

Perspective!!

This word has critical meaning in any consideration of health care costs.

Where you are coming from personally! That's basically what it means in our context here.

Perspective causes the health cost equation to veer from x to y to z, depending, as we said, on where you are coming from. If your perspective is that of . . .

A patient (or a close relative) chances are almost absolute you will want (and should get) the best care readily available and in the amount necessary—including personnel, technology, facilities, etc.— regardless of cost

A physician chances are similarly good you will want to assure your patient the best and most care necessary — be it diagnostic, therapeutic or rehabilitative — to render that patient as capable of returning to normal living as possible, again with cost as a relevant factor, but certainly not an all-imposing one.

A hospital administrator you want to be certain the patients housed in your facility have the accommodations, equipment, nursing care, etc., to facilitate and enhance care, with efficiency and economy, but again with the latter not jeopardizing the treatment outcome.

A health insurance executive you want to support quality care in an optimal amount to correlate with the premium dollar your company collects from its insureds.

A governmental official you likewise desire for the public dol-

lars designated for health care to be used wisely in serving those eligible, without fraud or abuse on the part of either the recipient or the provider of care.

A business owner you want to arrange an acceptable health care coverage program for your employees, one that is cost effective and will accommodate your profit/loss statement at the end of the year.

A labor union official you need to negotiate as comprehensive a health package for your members as circumstances will allow, and presumably not jeopardize the capacity of the employing organization to maintain a profitable operation.

An average taxpaying citizen you want your taxes and your health insurance premiums to be as low as the economy will allow, but you want adequate benefits when you or your family needs care

These classifications represent society in a microcosm. Everyone in today's milieu can put himself in one of these molds, mostly perhaps as patient or taxpayer. To oversimplify the health care proposition, each of us wants the best and closest care at the fairest price. Using more sophistication we can construct an equation to reflect the preceding: Acceptable Health Care = Quality + Access + Cost. There are culprits which make balancing the equation an increasingly tenuous matter. These include worldwide inflation, high labor costs, the energy shortage, the expense of technology, costly governmental regulation, liability factors (insurance premiums, defensive medicine), etc.

Abundant statistical material is available to document the influence of these and other elements on health care. Support can be found to justify nearly any point of view. The statistics in this discussion are countrywide essentially to afford a more national perspective.

ACCEPTABLE HEALTH CARE

One side of our equation is Acceptable Health Care. What is acceptable health care? This is pretty much a subjective question. Obviously, the individual with an excellent treatment result is a good bet to indicate acceptance. Conversely, the patient with a poor result, even though the treatment was provided with equal expertise and attention, is likely to offer a less acceptable reaction.

Independent polling activity has shown regularly most Americans regard the health care they receive as quite acceptable. A 1978 Gallup Poll found 90% of the population expressing satisfaction with their most recent visit to a physician.

To illustrate the existence of paradoxical findings in this area, we cite a recent University of Chi-

ACCEPTABLE HEALTH CARE = QUALITY + ACCESS + COST

cago research study conducted for the Robert Wood Johnson Foundation.¹ In this study, 88% of the respondents — a representative sample of the American population — said they were satisfied with the health care they were receiving. Yet a majority of these same individuals — 61% — said they believe the American health system is in a crisis. Why

SATISFIED -

"In the 1976 survey year, 76% of the population — 160 million — saw a doctor. The percentage of infants and small children seeing a physician was highest: 87%. The percentages decline sharply in the middle and late years of childhood, then climb slowly through the adult years to a level of 79% for those 65 or older.

"The report's most significant findings show the population at large — and every subpopulation group studied — has better access to medical services today than in 1970 or 1963.

"A comparison by income shows how low income groups have increased their use of physician services. Between 1963 and 1970, both low and middle income groups moved toward the high income group. During the next period, all three groups moved upward together in utilization."

— 1978 Special Report ROBERT WOOD JOHNSON FOUNDATION

the dichotomy? Conclusions are difficult when two disparate findings appear. It can be surmised that personal or family health needs are being met adequately by a physician or clinic. But, contrastingly, the idea that health care is in a crisis condition — as perceived presumably through the media — is a contradiction.

As one would further surmise, when the matter of economics (or dollars) is part of any public inquiry, a preponderance of the respondents would agree something must be done. This is the case with health care, understandably, until there is personal involvement and the need for at-

tention strikes close to home.

Why, again, do Americans rate their personal medical care as excellent on the one hand, and still perceive the nation generally to be in or near a crisis position? The access and cost elements of the equation have been and are disconcerting. There is no denying the presence of a vexing problem. The wide concern is based on such findings as:

- Almost 9% of the total U.S. gross national product went for health expenditures in 1977 (some predict it will go to 12% in the next several years).
- In 1977, personal health expenditures averaged \$646 a person, and approximately \$1780 per person for elderly Americans.
- Since 1950 the cost of a oneday hospital stay has increased 1.000%.
- Physicians' fees have been rising at a rate of about 9.2% a year. This increase is cause for concern even though it represents a 4% decline from the rate of increase for 1975.

Citing causes for the economic ailments in our health care system is a reasonably precise proposition. Inflation, the increasing cost of labor, the growth of technology, increased utilization, etc., have each and all contributed to the upward spiral. The global impact of these elements has bedeviled the marketplace where demand has been racing ahead of supply.

The public should be aware physicians' fees represent about 19 cents of the health care dollar. In addition, however, the population should know, as should physicians, that doctors act as purchasing agents for their patients, to cover from 50 to 80 additional cents in the dollar. It is abundantly clear the medical profession has a crucial role in current economic concerns. However, the quest for economy must necessarily remain subordinate to the maintenance of quality.

QUALITY OF CARE

Remember the basic equation:
Acceptable Health Care = Quali-

ty + Access + Cost. The right hand side is placed in an order almost certain to be preferred by all of society.

Measuring the quality of care is done variously. Morbidity and mortality tables are frequently cited. Improvements in public health - through environmental activity, immunization, nutritional emphasis, etc.,-have been combined with advancement in the treatment of illness to increase the life expectancy of the general population. Between 1920 and 1975, life expectancy has increased by approximately 15 years and almost 22 years for females. People who once died of a communicable disease now live longer but fall victim to degenerative diseases. So, while life may be prolonged, longevity often is accompanied by disability. Moreover, persons with chronic conditions are more susceptible to acute illnesses and require increased medical attention.

These health status indicators are of significance:²

- The average length of life for the U.S. population has increased 6.3% since 1950, from 68.2 years in 1950 to 72.5 years in 1975. In 1975, females had a life expectancy 7.8 years greater than males.
- In 1976, the death rate for the U.S. population was 8.9 per 1000 population.
- Heart disease was still the leading cause of death in 1976, accounting for 38% of all deaths.

The infant mortality rate is often used to indicate the effectiveness of the health care system. The 1976 estimated infant mortality rate was 15.1 per 1,000 live births. This is a decrease of 48.3% from 1950 when there was a rate of 29.2 per 1,000 live births. It is also a 6.2% decrease from 1975 when the rate was 16.1 per 1,000 live births. The 1976 rate for lowa has been reported at 13.9 per 1,000 births.

TECHNOLOGY

One important factor in the health care equation which attaches to each element (quality, access and cost) is technology. The subject of health care technology is a baffling one. How much sophistication and research

is the economy willing and able to support? Theoretically and ideally, with the potential for saving or prolonging life, truly significant resources should be allocated. However, practicality throws up a roadblock. How much money is available to support research and progress in technology? Once answered, the debate moves to how the funding can be used most effectively.

Ask those who have benefitted from the medical innovations of recent years. They no doubt will say the expense was justified. Renal dialysis, organ transplantation, cardiac surgery, chemotherapy, and computerized axial tomography each testify to the ongoing, but costly effort of man to prevent and cure his ills.

The installation of intensive care and coronary care units is illustrative of the progress. The number of private non-profit hos-

ACCEPTABLE HEALTH CARE = QUALITY + ACCESS + COST

include lifestyle. The way we live our lives is our business. However, we have a personal responsibility to deal with our health more conscientiously. Society has been more tuned to the idea of curing ills than it has been enamored by the thought that an ounce of prevention is worth a pound of cure. It is acknowledged by most observers the health care dollar would stretch infinitely further if people (including physicians) would be more attentive to how they live.

It is a familiar admonition. If lowans — and all Americans — ate less, exercised more, rested adequately, eliminated tobacco, curtailed alcohol, drove more carefully, etc., the cost of health care would drop dramatically. In 1975, Americans spent nearly

nel and facilities — is crucial in balancing our equation.

There is obvious variation in the access/supply/demand distribution picture. In some areas the supply of physicians is short. In some areas the number of hospital beds exceeds the need. Other places, the reverse is true. The matter of distribution is key. lowa has the virtue of reasonably even demographic conditions, both for the general population and for the health provider population. The goal is plain: manpower and facility distribution must be achieved to make both reasonably accessible and sufficiently used, in the interest of efficiency and the wise use of

Legislated health planning enters here. Its role is just now being tested. If the bureaucratic involvement can be kept in perspective, and cooperative local/regional/state efforts can be undertaken, formalized health planning may speak to the matter of access in a positive fashion.

A recent national survey¹ sponsored by the Robert Wood Johnson Foundation showed the population has better access to medical services today than in 1970 or 1963. This finding dovetails with the surge in production of physicians. The number of medical schools has jumped from 88 in 1965 to 116 today. And all existing schools have increased their enrollments. So, while manpower concerns may not be fully resolved, primarily as they relate to distribution, certain observers say we will have an over-supply of physicians in a few years. In 1976, there were 189 physicians per 100,000 population compared with 142 in 1960. And coupled with these gains has been a strong emphasis on the training of primary care physicians.

If there is a theory in economics which declares that prices for goods or services are influenced downward when supply approaches or surpasses demand, then the developments reported here should have an impact.

However, the demand for health services continues to increase. Total outpatient visits increased

EXPENDITURES & PERCENTAGES

Total health care expenditures have increased from \$38.9 billion in 1965 to \$139.3 billion in 1976 — a 258% increase. Per capita health care expenditures have increased from \$197.75 in 1965 to \$645.35 in 1976 — a 226% increase. Percentage expenditures by major category are as follows:

CATEGORY	PERCENTAGE		
	1965	1976	
Hospitals	33.8%	39.8%	
Physicians	21.6	18.9	
Drugs	11.9	8.0	
Nursing Homes	3.3	7.6	

Sources of funds for health care expenditures have changed as follows:

	1965	1976
Private	75.4%	57.8%
Public	24.6	52.2

pitals with ICU's increased from 11% in 1960 to 71% in 1973. The cost of treating a heart attack increased by slightly over 125% between 1964 and 1971. The question again comes forward: Is the cost of this progress, the use of highly trained personnel, super complex machinery, new medications, etc., appropriate in relation to the impact on the economy?

LIFESTYLE IMPACT

The factor of health (and the quality of it) must be stretched to

\$125 billion on recreation, alcohol, tobacco and personal grooming; they spent \$86 billion on hospitals, physicians' services, other health care and drugs.

ACCESS TO CARE

It is normal for individuals and families to want convenient access to health care. In utopia there is a doctor next door and a hospital in the next block. Reality rarely permits that. No doubt though, the supply and location of health services — both person-

ACCEPTABLE HEALTH CARE = QUALITY + ACCESS + COST

49.3% between 1970 and 1976, from over 181 million to almost 271 million. This is influenced by many factors, e.g., more people living longer with chronic ailments that need periodic attention.

COST OF HEALTH CARE

The final element in our equation is cost. Its significance has been apparent in much of the preceding. To balance the equation (Acceptable Health Care = Quality + Access + Cost), the individual may assign his own numerical importance value to each. They will vary depending on the circumstances. If your

family member is being treated for a serious illness, the equation could be 100 = 70 + 20 + 10. If you view the same case as a detached citizen, one who pays insurance premiums or taxes, it could be 100 = 40 + 30 + 30.

These several statistics will reemphasize the magnitude of the cost situation: (1) Health care expenditures were estimated at \$139.3 billion in fiscal 1976; (2) Hospital care was the largest cost component with \$55.4 billion (39.7%); (3) Physicians' services represented the second largest component at \$26.4 billion (18.9%); (4) Between 1970-1976 per capita personal health care expenditures increased 90%,

from \$290 to \$551; (5) In 1976, 57.8% of total health care expenditures were paid with private funds, down from 74.3% in 1966, and (6) In 1975, an estimated 168.4 million different Americans, or 79.3% of the civilian population, were protected by some form of private health insurance.

SUMMARY

This overview of the factors impacting on health care is brief. It shows a complex set of circumstances. On the one hand, this country has better medical care available than ever before. And continuous improvement is being made. Care seems to be getting more accessible. But the matter of costs, and how to deal with them, clouds the horizon. Further government involvement is a solution fraught with uncertainty and uncalculable tax imposition. Advocates of this course must look closely at current government performance and at other nationalized systems in the world.

Various alternatives present themselves. One is to justify the costs - by correctly noting the inflation, technology, greater longevity, etc. This is okay to a point. A second option is to defer entirely to government. Thirdly, the challenge can be taken up voluntarily at the local and state levels. Such pursuit is now represented by the Iowa Voluntary Cost Containment Committee. The IVCCC is part of a national private-sector program. Its impetus is coming in this state from the lowa Medical Society and the Iowa Hospital Association.

All citizens share in the responsibility for addressing today's health care equation, openly and honestly. By the way they live. By their attempts to be informed.

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VOLUNTARY COST CONTAINMENT

In support of national voluntary efforts to moderate health care spending, the lowa Medical Society, joined by the lowa Hospital Association, has helped form the lowa Voluntary Cost Containment Committee. To undergird this important activity, the lowa Medical Society has approved the following resolution:

Whereas, Increases in the cost of medical care are real and continuing, causing methods which result in better care, prolonged life, or a better quality of life, and

Whereas, Other important factors causing the increases in costs are government regulations, higher labor, energy and malpractice costs, and general inflation, and

Whereas, The American Medical Association, American Hospital Association, and Federation of American Hospitals late in 1977 created the Voluntary Effort aimed at moderating increases in hospital charges which have already begun to moderate, and

Whereas, Tom E. Nesbitt, M.D., President of the American Medical Association, called on physicians in his inaugural address to use similar restraint in their fee increases,

Be it Resolved that the Iowa Medical Society endorse the call by AMA President Tom E. Nesbitt, M.D., for physicians to help moderate increases in medical care costs by using appropriate restraints to keep fee increases more nearly in line with the annual increase in cost of living; and

Be it further Resolved, that the Iowa Medical Society endorse the Voluntary Effort as a responsible private-sector activity to restrain increases in hospital costs without arbitrary limits or government intervention.

7GOOD HABITS YOUR DOCTOR WISHES YOU HAD.









Here are seven good health habits we all need to pursue. (1) **Three meals a day** at regular times and no snacking. Don't skip breakfast — it'll get you in trouble later on in the day when you're apt to eat more than you should. (2) **Moderate exercise** two or three times a week. If you have any questions about what kind, ask your doctor. He wants you to stay healthy and enjoy life. (3) **Adequate sleep.** Seven or eight hours a night for most people. Sleep's a great restorative and it doesn't cost you a dime. (4) **No smoking.** It's hard to give up if you already do, but isn't your health worth it? (5) **Immunization.** Make it a habit to make sure the kids get the "shot" their doctor recommends.



We have most childhood diseases licked and we don't want them showing up again. (6) **Moderate weight.** Being too skinny isn't good either. Get down or up to weight that's right for you and maintain it. (7) **Alcohol in moderation.** If you use it at all, use it sparingly. In fact, moderation all-around is probably the single best way to contribute your share to your "good health."





As a physician serving you, I join my fellow lowa doctors in recommending these basic guides to good health. We believe they may represent your best defense against illness. The above graphic material is adopted from a message prepared by the American Medical Association and is presented with permission and appreciation. We believe the comments on the following pages may be informative.

HEALTH TIPS

· Arthritis is a general word to cover several different but related illnesses. Its root words mean ioint and inflammation. The most common forms are rheumatoid arthritis and osteoarthritis. They are different, but each produces painful, deformed joints.

Rheumatoid arthritis is a disease of the whole body. It is three times more common in women and usually begins between ages 20 and 35. Early symptoms may be weakness, fever, loss of appetite and loss of weight. The skin, especially the hands, may be cold and clammy. One or more joints become inflamed and swollen.

Treatment reduces the pain of an acute attack and usually increases the range of motion. But treatment does not cure. There is no cure.

Osteoarthritis is a quieter, less dramatic illness. However, when it develops in a joint it is less likely to go away. Eventually the joint is injured, the smooth lining membrane and the cartilage pads are damaged and permanent changes within the joint limit its motion and make any motion painful.

Everyone will develop osteoarthritis if he or she lives long enough. It begins in middle age,



usually in a hip, knee, shoulder or in the back. Individualized treatment is necessary. Drugs may be prescribed to reduce pain and inflammation. Exercise and physical therapy may be recommended. Weight control may be necessary. Rest is essential at all times.

• Appendicitis strikes every 15th person or about 7% of the population. It occurs among all ages but is most frequent in young adults between 20 and 30. Approximately 200,000 cases of acute appendicitis are recognized in the U.S. annually. Fatality rate is one per cent.

Symptoms similar to other abdominal problems often make diagnosis difficult. Not every case of stomach ache means appendicitis. Most of them are simple indigestion. Delay in seeking medical attention is common, due to failure to recognize the serious-

ness of the attack.

The appendix is a small pouch arising from the first portion of the large bowel, near the point where it receives the liquid contents of the small bowel. Troubles come when bowel content enters the appendix and lodges there, blocking drainage out of the pouch. The appendix swells and, if not removed promptly, will often rupture, spilling the infected contents into the abdominal cavity.

The three chief symptoms are

MEDICAL **PROGRESS**

We all applaud medical progress. It's been made steadily, even dramatically, throughout the century. Here are several examples of the positive activity which has been and is now going forward:

- Life expectancy in the United States has increased 6.3% since 1950; from 68.2 years in 1950 to 72.5 years in 1975.
- The 1976 estimated infant mortality rate nationally was 15.1 per 1,000 live births. This represents a 48.3% decrease from 1950 when the rate was 29.2 per 1,000 live births. In lowa the 1976 figure was 13.9 per 1,000.
- There were 189 physicians per 100,000 population in 1976, compared with 142 in 1960.
- The number of graduates from U.S. medical and basic science schools was 13,607 in 1976-1977, up 62.6% from the 1969-1970 year. The number of U.S. medical schools has increased from 85 to 116 since 1965.

- More than 65% of today's first year residents are entering primary care residency training programs. The number of family practice programs reached 352 in 1977 with 5,421 residents in these programs.
- Nine of the 10 most fatal diseases in 1970 have shown reduced mortality rates.
- Since 1950 the rate of deaths from heart disease in the U.S. has dropped 30%. One third of that reduction has occurred in the last five years. Modifications in lifestyle - giving up smoking, weight control, regular exercise plus control of high blood pressure are credited for the gain.
- Mortality from stroke in the 45-65 age group dropped 50% and deaths from coronary occlusion dropped 30% in the 45-75 age group during the past 20 years.
- Gains have been made against bladder and prostate cancer, even though lung cancer has increased.
- Communicable diseases have declined dramatically. Iowa had 3,562 cases of polio in 1952; this has declined to virtually zero in recent years.

pain, nausea and vomiting, with tenderness in the right lower portion of the abdominal wall. There is great variation in symptoms. But most often the pain is severe. Treatment is removal by surgery. If diagnosed early, the operation is comparatively simple. If the appendix has burst, the clean up job becomes much more complicated. Improvements in diagnosis, anesthesia, and surgical technique have decreased danger. But the most important advance has been the introduction of antibiotics to treat infection.

• Adverse drug reactions do occur for the occasional person. Penicillin, the life-saving wonder drug that quickly halts pneumonia and many other illnesses and infections, produces adverse reactions in possibly one of every 20 persons. But penicillin still saves thousands of lives every year.

The pharmaceutical manufacturers are constantly studying drugs, determining their safe and effective doses, learning of their side effects, and advising physicians and pharmacists about their safe use, as well as their potential dangers.

Patients should feel free to take the drug the doctor prescribes. But they should let their doctor know about any adverse reactions. If the patient believes the reaction is not usual, he should report to the physician immediately and stop taking the medicine until the doctor can advise him. Used properly, under a physician's direction, modern drugs can truly perform modern miracles.

• Taking medicine correctly is obviously important. The exact dose should be taken at the proper time, under conditions that insure against error. Here are several tips: (1) Store medicines in a cabinet, preferably locked, away from the reach of children. (2) Keep only medicines currently in use. (3) Destroy old prescriptions, because many drugs lose potency or may be chemically changed by time. (4) Read the label in a good light before opening the bottle or box. Read it again before taking the medicine. (5) If you have more than one box of pills or capsules to take, be sure one is closed before opening the

HOW TO SAVE ON YOUR HEALTH COSTS

lowa physicians are concerned about rising health costs. We want to help save on these costs whenever possible. Some cost factors are simply the unavoidable result of inflation. However, there are some things you can do as a patient.

Keep a good medical reference book handy

Common sense and a good reference book may answer minor problems. Such a volume may help you decide when to call your physician.

Get a personal or family physician

A "primary care" physician takes care of the whole body. It's worthwhile to find such a doctor when you're well.

Use the emergency room for emergencies

Use of the hospital emergency room can be expensive. The cost is usually two or three times that of the doctor's office. Most conditions can wait for regular office hours.

· Ask for consultation if you are in doubt

If you want further evaluation of a recommended treatment or surgery, ask your doctor to arrange a consultation with a second physician. A confirmation, while adding cost, may give reassurance. If other options appear, you will have the recommendations to weigh.

Don't press for tests and x-rays

Your age, sex and general health may make some tests worthwhile, others perhaps are unnecessary. Let your doctor decide.

Choose hospitalization only when necessary

Go to the hospital only when advocated by your doctor. Don't insist. Some people believe inpatient care is "free" because private insurance or the government will pay. Not so. These costs must be passed on as premiums and/or taxes. Also, when possible, it's money-saving to have tests done before you go to the hospital.

• Check fees and prices in advance

Physicians' fees vary for many reasons. Your doctor should be happy to discuss his charges with you. Or you may visit first with his office personnel. You should check hospital rates and prescription prices, as well, they vary from place to place.

An ounce of prevention

Manage your life and that of your family by using good judgment. This means appropriate nutrition, rest, exercise, etc. You have the ability to prevent many medical bills.



other. This avoids switching covers, and also labels. (6) When pouring from a bottle, avoid dripping on the label to make it hard to read. (7) Never take medicines in the dark. (8) Keep medicines away from the bedside table. It's too easy to take an overdose if the medication is accidentally repeated during the night while sleepy. (9) Keep medicines in the original container. If you carry pills in a pill box, paste a small label inside the lid. (10) Avoid using medicine for children disguised as candy. The child may find the medicine and take the whole bottle.

THE DOCTOR/PATIENT RELATIONSHIP

Ten statements comprise the Principles of Medical Ethics. The first one says this: The principle objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.

This yoke under which the physician labors establishes a totally unique relationship. Perhaps only the bonds between wife and husband or parent and child are of greater significance.

The need for mutual trust and understanding is paramount. The partnership between you and your doctor should be an open one. It is recognized by ethics and by law to be confidential. You have a responsibility to report your symptoms as accurately and as completely as possible. He/she has a duty to listen carefully, to make appropriate note of your concerns, and to assess and address your circumstances with his/her special expertise.

Technology may be of little use if your doctor doesn't fully understand your problem or, vice versa, if you don't comprehend and follow his instructions. This is why mutual trust, understanding and cooperation are often as important as medication and machinery.

In today's complex age the team concept is frequently used. Consultants are often called by the attending physician to review the findings and affirm the diagnosis. This custom is in your best interests. And you should know you have every right to request a second opinion if you wish confirmation of any recommended treatment.

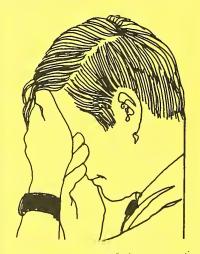
Obviously, a long and solid relationship is the best one. It is recommended when establishing a family, moving to a new community, or whenever circumstances suggest, that you secure a primary physician to serve your needs. By so doing, you will be allowing the doctor/patient relationship to serve your best interests.

• "Little Strokes" are often an unsuspected cause of mental and physical incapacity. A stroke occurs when the blood supply to a part of the brain is reduced or completely cut off. This can be caused by a blood clot, or by hemorrhage — bleeding from an artery in the brain. When the nerve cells of a part of the brain are deprived of their blood supply, the part of the body controlled by these nerve centers cannot function normally.

Little strokes may start when a person is in the 30s and 40s, striking silently at night or passing almost unnoticed as a sudden dizzy spell, a momentary blackout, or just a few moments of confusion. The stroke itself is not severe enough to compel the patient to seek medical aid, but some permanent brain damage remains just the same.

Personality changes may occur. When the symptoms are mild, as they often are, the person may get along fairly well. A sufferer from little strokes usually can get along better in a slower-going style of living.

The problem of small strokes is one of the most difficult facing medical science. The most hopeful research is that of finding ways



to prevent stroke. Science seeks to learn more about how to recognize early symptoms so treatment can be instituted promptly.

 Anemia occurs if your blood has too few cells or too little hemoglobin. Hemoglobin is the red coloring in the red cells.
 A favorite self-diagnosis by peo-

ple who do not feel well is anemia. Although more often than not this diagnosis is completely wrong, anemia is a serious health problem. Symptoms of anemia typically include fatigue, shortness of breath, lack of energy and

a generally washed out feeling. However, these symptoms also have other causes, and their presence does not justify self-diagnosis of anemia.

Anemia can have various causes — improper diet, poor absorption of food, excessive or chronic bleeding, injury to the bone marrow, certain parasites and infections. Whatever the cause, it isn't safe to make your own diagnosis and to treat yourself. Only a physician can determine what is causing your anemia and can then prescribe treatment.

The function of the hemoglobin in your blood is to pick up oxygen from the air you breathe and carry it to all of your body tissues, as well as to carry carbon dioxide from these tissues to the lungs to be breathed out. Anemia reduces the number of red cells and the amount of hemoglobin, and the blood can't carry enough oxygen to supply your body's needs. Unless you have some abnormal condition, you can prevent nutritional anemia by eating a variety of nourishing foods. The products advertised to correct deficiencies should not be used unless examined by a doctor and he has recommended them for your particular deficiency.

The preceding comments on various common ailments and diseases are drawn from materials prepared by the American Medical Association. It is in the interest of informing the public that your doctor and the lowa Medical Society offers this four- page summary of various important topics.





